Access DB# 94177

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: JEFF PARKIN Examiner # : 72607 Date: 05/15/03
Art Unit: 1648 Phone Number 308-2227 Serial Number: 09/623 533
Mail Box and Bldg/Room Location: CM01/8E15 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need. BOTH ME

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

_____

Earliest Priority Filing Date: _____

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

Please search the structures for claim 52-55. There are chemically modified peptides for HIV-1 gp41 (AKA T20 or DP178).

Thanks.

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STAFF USE ONLY	Type of Search		Vendors and cost where applicable	
Searcher: Shepperd	NA Sequence (#)		STN	
Searcher Phone #: 308-4499	AA Sequence (#)		Dialog	
Searcher Location:	Structure (#)		Questel/Orbit	
Date Searcher Picked Up:	Bibliographic		Dr.Link	
Date Completed: 5/20/03	Litigation		Lexis/Nexis	
Searcher Prep & Review Time:	Fulltext		Sequence Systems	
Clerical Prep Time:	Patent Family		WWW/Internet	
Online Time:	Other		Other (specify)	

PTO-1590 (8-01)

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FILE COVERS 1907 - 20 May 2003  VOL 138 ISS 21
FILE LAST UPDATED: 19 May 2003  (20030519/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

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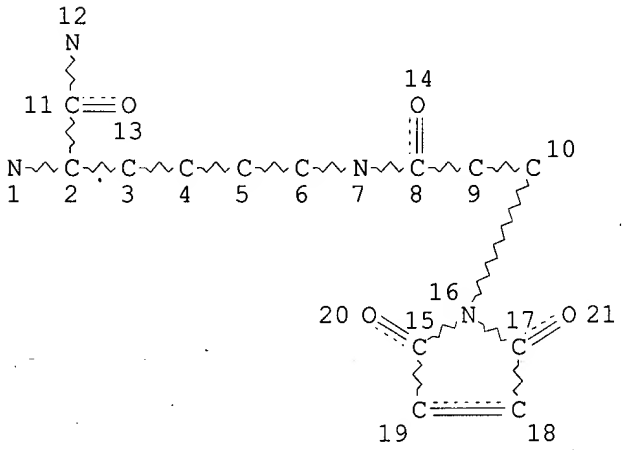


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NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  21

STEREO ATTRIBUTES: NONE
L3            54 SEA FILE=REGISTRY SSS FUL L1
L4            21 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3


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L4 ANSWER 1 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:660233 HCAPLUS
DOCUMENT NUMBER: 137:365153
TITLE: Kinetics of tethering quaternary ammonium compounds to K+ channels
AUTHOR(S): Blaustein, Robert O.
CORPORATE SOURCE: Department of Biochemistry, Brandeis University, Waltham, MA, 02454, USA
SOURCE: Journal of General Physiology (2002), 120(2), 203-216
CODEN: JGPLAD; ISSN: 0022-1295
PUBLISHER: Rockefeller University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Polymeric maleimido-quaternary ammonium (QA) compds. have been shown to function as mol. tape measures when covalently tethered to external cysteine residues of a Shaker K+ channel (Blaustein R.O., P.A. Cole, C. Williams, and C. Miller. 2000. Nat. Struct. Biol. 7:309-311). For sufficiently long compds., the cysteine-maleimide tethering reaction creates a high concn., at the channel's pore, of a TEA-like moiety that irreversibly blocks current. This paper investigates a striking feature of the maleimide-cysteine tethering kinetics. Strong blockers-those that induce substantial levels (>80%) of irreversible inhibition of current-react with channel cysteines much more rapidly than weak blockers and, when delivered to channels with four cysteine targets, react with multiexponential kinetics. This behavior is shown to arise from the ability of a strong blocker to conc. its maleimide end near a channel's cysteine target by exploiting the reversible pore-blocking affinity of its QA headgroup.
IT **475558-09-9 475558-10-2**
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(difference in behavior between these two blockers of potassium channels result from ability of strong blokes to acts as affinity label)
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:615671 HCAPLUS
DOCUMENT NUMBER: 137:164122
TITLE: Long lasting growth hormone releasing factor derivatives
INVENTOR(S): Bridon, Dominique P.; Boudjellab, Nissab; Leger, Roger; Robitaille, Martin; Jette, Lucie; Benquet, Corinne
PATENT ASSIGNEE(S): Conjuchem Inc., Can.
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002062844	A2	20020815	WO 2002-CA123	20020201

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,

UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2003073630 A1 20030417 US 2002-203809 20020812
PRIORITY APPLN. INFO.: US 2001-266424P P 20010202
WO 2002-CA123 W 20020201

OTHER SOURCE(S): MARPAT 137:164122

AB This invention relates to growth hormone releasing factor (GRF) derivs. In particular, this invention relates to GRF peptide derivs. having an extended in vivo half-life, for promoting the endogenous prodn. or release of growth hormone in humans and animals. The deriv. comprises a GRF peptide or analog comprising a reactive entity coupled thereto and capable of reacting with available functionalities on a blood component to form a stable covalent bond. The reactive entity may be coupled to the N-terminal of the peptide, the C-terminal of the peptide, or to an other available site along the peptidic chain. Pharmaceutical compns. contg. the GRF derivs. and therapeutic uses of the GRF derivs. are also claimed.

IT **446037-12-3P 446037-14-5P**
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and use of long lasting growth hormone releasing factor derivs.)

L4 ANSWER 3 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:430337 HCAPLUS
DOCUMENT NUMBER: 135:211262
TITLE: Design, synthesis and properties of synthetic chlorophyll proteins
AUTHOR(S): Rau, Harald K.; Snigula, Heike; Struck, Andreas; Robert, Bruno; Scheer, Hugo; Haehnel, Wolfgang
CORPORATE SOURCE: Institut fur Biologie II/Biochemie, Albert-Ludwigs-Universitat Freiburg, Freiburg, D-79104, Germany
SOURCE: European Journal of Biochemistry (2001), 268(11), 3284-3295
CODEN: EJBCAI; ISSN: 0014-2956
PUBLISHER: Blackwell Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A chemoselective method is described for coupling chlorophyll derivs. with an aldehyde group to synthetic peptides or proteins modified with an aminoxyacetyl group at the .epsilon.-amino group of a lysine residue. Three template-assembled antiparallel four-helix bundles were synthesized for the ligation of one or two chlorophylls. This was achieved by coupling unprotected peptides to cysteine residues of a cyclic decapeptide by thioether formation. The amphiphilic helixes were designed to form a hydrophobic pocket for the chlorophyll derivs. Chlorophyll derivs. Zn-methyl-pheophorbide b and Zn-methyl-pyropheophorbide d were used. The aldehyde group of these chlorophyll derivs. was ligated to the modified lysine group to form an oxime bond. The peptide-chlorophyll conjugates were characterized by electrospray mass spectrometry, anal. HPLC, and UV/visible spectroscopy. Two four-helix bundle chlorophyll conjugates were further characterized by size-exclusion chromatog., CD, and resonance Raman spectroscopy.

IT **216884-15-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and properties of synthetic chlorophyll proteins using template-assembled antiparallel amphiphilic four-helix bundles)

REFERENCE COUNT: 78 THERE ARE 78 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:185609 HCAPLUS
DOCUMENT NUMBER: 134:237836
TITLE: Preparation of peptides for pulmonary delivery compositions via bioconjugation
INVENTOR(S): Ezrin, Alan M.; Fleser, Angelica; Robitaille, Martin; Milner, Peter G.; Bridon, Dominique P.
PATENT ASSIGNEE(S): Conjuchem, Inc., Can.
SOURCE: PCT Int. Appl., 184 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001017568	A2	20010315	WO 2000-IB1429	20000907
WO 2001017568	A3	20020711		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1235618	A2	20020904	EP 2000-962766	20000907
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003508501	T2	20030304	JP 2001-521356	20000907

PRIORITY APPLN. INFO.: US 1999-152681P P 19990907
WO 2000-IB1429 W 20000907

AB Methods and compns. for pulmonary delivery of therapeutic agents which are capable of forming covalent bonds with a site of interest or which have formed a covalent bond with a pulmonary soln. protein are disclosed. A modified therapeutic agent comprises a therapeutic agent (GP-41 peptides, BBB peptides, anticancer agents, antihistamines, etc.) and a reactive group which reacts in vivo with amino, hydroxyl or thiol groups on pulmonary components or blood components to form a stable covalent bond. In the examples, a series of peptides (e.g., modified RGD peptide AGYKPEGKRGDAK) were synthesized by the solid phase method.

IT **307314-62-1P 329716-72-5P 329716-74-7P**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of peptides for pulmonary delivery compns. for bioconjugation)

L4 ANSWER 5 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:824301 HCAPLUS
DOCUMENT NUMBER: 134:13338
TITLE: Long lasting insulinotropic peptides
INVENTOR(S): Bridon, Dominique P.; L'Archeveque, Benoit; Ezrin, Alan M.; Holmes, Darren L.; Leblanc, Anouk; St. Pierre, Serge
PATENT ASSIGNEE(S): Conjuchem, Inc., Can.
SOURCE: PCT Int. Appl., 96 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000069911	A1	20001123	WO 2000-US13563	20000517
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
WO 2000070665	A2	20001123	WO 2000-IB763	20000517
WO 2000070665	A3	20010419		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1171582	A2	20020116	EP 2000-929748	20000517
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
EP 1180121	A1	20020220	EP 2000-930796	20000517
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2000010750	A	20020226	BR 2000-10750	20000517
AU 754770	B2	20021121	AU 2000-48555	20000517
EP 1264840	A1	20021211	EP 2002-14617	20000517
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003500341	T2	20030107	JP 2000-619018	20000517
US 6329336	B1	20011211	US 2000-623618	20000905
US 6514500	B1	20030204	US 2000-657332	20000907
US 2002049153	A1	20020425	US 2001-876388	20010606
NO 2001005584	A	20020103	NO 2001-5584	20011115

PRIORITY APPLN. INFO.:

US 1999-134406P	P	19990517
US 1999-159783P	P	19991015
US 1999-153406P	P	19990910
EP 2000-932570	A3	20000517
WO 2000-IB763	W	20000517
WO 2000-US13563	W	20000517
US 2000-623618	A3	20000905

AB Modified insulinotropic peptides are disclosed. The modified insulinotropic peptides are capable of forming a peptidase stabilized insulinotropic peptide. The modified insulinotropic peptides are capable of forming covalent bonds with one or more blood components to form a conjugate. The conjugates may be formed in vivo or ex vivo. The modified peptides are administered to treat humans with diabetes and other related diseases.

IT **307315-09-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(long lasting insulinotropic peptides with antidiabetic activity)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:824291 HCAPLUS

DOCUMENT NUMBER: 134:21425
TITLE: Protection of endogenous therapeutic peptides from peptidase activity through conjugation to blood components
INVENTOR(S): Bridon, Dominique P.; Ezrin, Alan M.; Milner, Peter G.; Holmes, Darren L.; Thibaudeau, Karen
PATENT ASSIGNEE(S): Conjuchem, Inc., Can.
SOURCE: PCT Int. Appl., 733 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000069900	A2	20001123	WO 2000-US13576	20000517
WO 2000069900	A3	20010215		
WO 2000069900	C2	20020704		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
WO 2000070665	A2	20001123	WO 2000-IB763	20000517
WO 2000070665	A3	20010419		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1105409	A2	20010613	EP 2000-936023	20000517
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
EP 1171582	A2	20020116	EP 2000-929748	20000517
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
EP 1264840	A1	20021211	EP 2002-14617	20000517
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003500341	T2	20030107	JP 2000-619018	20000517
JP 2003508350	T2	20030304	JP 2000-618316	20000517
US 6514500	B1	20030204	US 2000-657332	20000907

PRIORITY APPLN. INFO.:
US 1999-134406P P 19990517
US 1999-153406P P 19990910
US 1999-159783P P 19991015
EP 2000-932570 A3 20000517
WO 2000-IB763 W 20000517
WO 2000-US13576 W 20000517

AB A method for protecting a peptide from peptidase activity in vivo, the peptide being composed of between 2 and 50 amino acids and having a C-terminus and an N-terminus and a C-terminus amino acid and an N-terminus amino acid is described. In the first step of the method, the peptide is modified by attaching a reactive group to the C-terminus amino acid, to the N-terminus amino acid, or to an amino acid located between the

N-terminus and the C-terminus, such that the modified peptide is capable of forming a covalent bond in vivo with a reactive functionality on a blood component. The solid phase peptide synthesis of a no. of derivs. with 3-maleimidopropionic acid (3-MPA) is described. In the next step, a covalent bond is formed between the reactive group and a reactive functionality on a blood component to form a peptide-blood component conjugate, thereby protecting said peptide from peptidase activity. The final step of the method involves the analyzing of the stability of the peptide-blood component conjugate to assess the protection of the peptide from peptidase activity. Thus, the percentage of a K5 kringle peptide (Pro-Arg-Lys-Leu-Tyr-Asp-Lys-NH2) conjugated to human serum albumin via MPA remained relatively const. through a 24-h plasma assay in contrast to unmodified K5 which decreased to 9% of the original amt. of K5 in only 4 h in plasma.

IT **224785-55-1P 224785-62-0P 307314-59-6P**
307314-61-0P 307314-63-2P 307314-65-4P
307314-67-6P 307314-69-8P 307314-71-2P
307314-73-4P 307314-78-9P 307314-79-0P
307314-80-3P 307315-09-9P 307315-10-2P
307315-11-3P 307315-16-8P
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(protection of endogenous therapeutic peptides from peptidase activity through conjugation to blood components)

L4 ANSWER 7 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:425768 HCAPLUS
DOCUMENT NUMBER: 133:144752
TITLE: Site specific 1:1 opioid:albumin conjugate with in vitro activity and long in vivo duration
AUTHOR(S): Holmes, Darren L.; Thibaudeau, Karen; L'Archeveque, Benoit; Milner, Peter G.; Ezrin, Alan M.; Bridon, Dominique P.
CORPORATE SOURCE: ConjuChem Inc., Montreal, QC, H2X 3Y8, Can.
SOURCE: Bioconjugate Chemistry (2000), 11(4), 439-444
CODEN: BCCHES; ISSN: 1043-1802
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A site-specific 1:1 dynorphin A-(1-13)-NH2 deriv. conjugated specifically to Cys 34 on human serum albumin (CCI-1035) was shown to be an opioid receptor agonist in vitro and to be a long lasting antinociceptive agent when administered i.v. to mice as assessed by an acetic acid writhing assay. When 10 .mu.mol/kg of CCI-1035 was administered to mice, rapid antinociception was obsd. within 5 min following i.v. bolus injection and was sustained beyond 8 h. Antinociceptive activity was absent in a heat induced pain model using a mouse tail-flick assay. This finding represents the first report of a 1:1 albumin opioid conjugate retaining potent in vivo activity equal to or greater than dynorphin A, accompanied by a dramatic extension in duration of action. This novel site-specific bioconjugation technol. produces an agent that may be useful for peripheral pain therapy.

IT **287726-97-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(albumin conjugate; site specific 1:1 opioid:albumin conjugate with in vitro activity and long in vivo duration)

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 21 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:283519 HCAPLUS
DOCUMENT NUMBER: 133:319675
TITLE: Synthetic four-helix-bundle protein carrying 1 or 2 chlorophyll derivatives
AUTHOR(S): Struck, A.; Snigula, H.; Rau, H.-K.; Horth, P.; Scheer, H.; Haehnel, W.
CORPORATE SOURCE: Biologie II, University of Freiburg, Freiburg, D-79104, Germany
SOURCE: Photosynthesis: Mechanisms and Effects, Proceedings of the International Congress on Photosynthesis, 11th, Budapest, Aug. 17-22, 1998 (1998), Volume 5, 4213-4216. Editor(s): Garab, Gyozo. Kluwer Academic Publishers: Dordrecht, Neth.
CODEN: 68VVAS
DOCUMENT TYPE: Conference
LANGUAGE: English
AB The structures of several (bacterio)chlorophyll proteins have elucidated on the interactions between proteins and cofactors. A study was conducted whereby synthetic proteins were designed with similar cofactors. Based on recent success in designing heme proteins, a modular strategy was taken, which relies on a synthesis of a four helix bundle. In order to reduce potential complications, three structural modifications were introduced in the current work. The synthetic peptides were loaded with 1 or 2 chlorophyll a derivs. such that they were principally capable of an edge-to-edge interaction, reminiscent of the B850, B870 pigments in LH2, LH1 and RC, resp., from purple bacteria.
IT **303013-27-6P**
RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(amino acid sequence; synthetic four-helix-bundle protein carrying 1 or 2 chlorophyll derivs.)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:240433 HCAPLUS
DOCUMENT NUMBER: 133:27800
TITLE: Tethered blockers as molecular "tape measures" for a voltage-gated K+ channel
AUTHOR(S): Blaustein, Robert O.; Cole, Philip A.; Williams, Carole; Miller, Christopher
CORPORATE SOURCE: Department of Biochemistry, Howard Hughes Medical Institute, Brandeis University, Waltham, MA, 02454, USA
SOURCE: Nature Structural Biology (2000), 7(4), 309-311
CODEN: NSBIEW; ISSN: 1072-8368
PUBLISHER: Nature America
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The propagation of elec. signals in excitable cells is orchestrated by a mol. family of voltage-dependent ion channel proteins. These K+, Na+, and Ca++ channels are all composed of four identical or similar units, each contg. six transmembrane segments (S1-S6) in a roughly four-fold sym. structure. The S5-S6 sequences fold into a central pore unit, which is surrounded by a voltage-gating module composed of S1-S4. The recent structure of KcsA, a two-transmembrane bacterial K+ channel, illuminates the phys. character of the pore unit, but little is known about the arrangement of the surrounding S1-S4 sequences. To locate regions of this gating module in space, we synthesized a series of compds. of varying length that function as mol. "tape measures": quaternary ammonium (QA) pore blockers that can be tethered to specific test residues. We show that in a Shaker K+ channel, the extracellular ends of S1 and S3 are .apprx.30 .ANG. from the tetraethylammonium (TEA) blocking site at the

external opening of the pore. A portion of the S3-S4 loop is, at 17-18 .ANG., considerably closer.

IT **274258-94-5 274258-95-6 274258-97-8 274258-99-0 274259-00-6 274259-01-7**
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(quaternary ammonium pore blockers show extracellular ends of S1 and S3 transmembrane segments of Shaker K+ channel are .apprx.30.ANG. from TEA blocking site at pore opening)

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:795852 HCAPLUS
DOCUMENT NUMBER: 132:34768
TITLE: Divalent antibody fragments
INVENTOR(S): Chapman, Andrew Paul; King, David John
PATENT ASSIGNEE(S): Celltech Therapeutics Limited, UK
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9964460	A1	19991216	WO 1999-GB1800	19990608
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2330186	AA	19991216	CA 1999-2330186	19990608
AU 9942783	A1	19991230	AU 1999-42783	19990608
GB 2354242	A1	20010321	GB 2000-30176	19990608
EP 1090037	A1	20010411	EP 1999-955481	19990608
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
DE 19983347	T	20010628	DE 1999-19983347	19990608
JP 2002517515	T2	20020618	JP 2000-553466	19990608

PRIORITY APPLN. INFO.: GB 1998-12545 A 19980610
WO 1999-GB1800 W 19990608

AB Divalent antibody fragments are described, each of which has one or more interchain bridges contg. a synthetic or naturally occurring polymer selected from a polyalkylene, polyalkenylene, polyoxyalkylene or polysaccharide. Each bridge may be the residue of a homo- or heterobifunctional crosslinking reagent and serves to link two heavy chains in each antibody fragment via the sulfur atoms of cysteine residues present in the chains. Each fragment may be attached to one or more effector or reporter mols., and is of use in therapy or diagnostics where it has markedly improved binding and/or pharmacokinetic properties when compared to other antibody fragments which have the same no. and type of polymer mols. but in which the polymer mols. are randomly attached. The antibody fragment is selective to cell surface antigen, e.g. human TNF.alpha., PDGF, or a receptor thereof.

IT **252335-95-8P 252335-97-0P**
RL: BUU (Biological use, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation);

RACT (Reactant or reagent); USES (Uses)
(prepn. of divalent antibody fragments contg. polymer mol. in covalent linkage)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:325825 HCAPLUS
DOCUMENT NUMBER: 130:357137
TITLE: Novel conjugates of opioids and endogenous carriers for extension of therapeutic life of analgesics
INVENTOR(S): Ezrin, Alan M.; Bridon, Dominique P.; Holmes, Darren L.; Milner, Peter
PATENT ASSIGNEE(S): Conjuchem, Inc., Can.
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9924074	A2	19990520	WO 1998-US23704	19981106
WO 9924074	A3	19990819		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2301799	AA	19990520	CA 1998-2301799	19981106
AU 9913127	A1	19990531	AU 1999-13127	19981106
AU 750387	B2	20020718		
EP 1007561	A2	20000614	EP 1998-956656	19981106
EP 1007561	B1	20020417		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001522817	T2	20011120	JP 2000-520159	19981106
EP 1167383	A1	20020102	EP 2001-121557	19981106
EP 1167383	B1	20030326		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
EP 1199566	A1	20020424	EP 2001-126379	19981106
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
AT 216402	E	20020515	AT 1998-956656	19981106
ES 2173641	T3	20021016	ES 1998-956656	19981106
AT 235513	E	20030415	AT 2001-121557	19981106
US 6437092	B1	20020820	US 1999-445986	19991216
US 2001018420	A1	20010830	US 2001-798119	20010301
US 2001018421	A1	20010830	US 2001-798121	20010301
US 6500918	B2	20021231		
US 2002039999	A1	20020404	US 2001-798114	20010301

PRIORITY APPLN. INFO.:

US 1997-64705P	P	19971107
US 1998-77927P	P	19980313
EP 1998-956656	A3	19981106
EP 1998-959387	A3	19981106
WO 1998-US23704	W	19981106
US 1999-445986	A3	19991216

AB Conjugates are prepd. from antinociceptive agents, particularly opioids or

opioid analogs, more particularly dynorphins, endorphins, deltorphins, enkephalins or analogs thereof, by combining said antinociceptive agent with a material providing a functionally reactive group capable of reacting with a blood component (preferably a blood cell or protein). Said conjugates permit extension of the therapeutic life of the antinociceptive agent. They may be administered to patients to alleviate pain, produce analgesic effects, or assist in cases of narcotics withdrawal, and may also be used as probes for receptor activity. The administration to the patient may be made either in vivo or ex vivo and may be performed by either introducing the deriv. including the reactive functional group into the patient's vascular system or prepg. such a conjugate externally (or in vitro) and introducing that conjugate to the patient's vascular system.

IT **224785-55-1P 224785-62-0P**
RL: PNU (Preparation, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(conjugates of opioids and endogenous carriers for extension of therapeutic life of analgesics)

L4 ANSWER 12 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:649172 HCAPLUS
DOCUMENT NUMBER: 130:66795
TITLE: Modular synthesis of de novo-designed metalloproteins for light-induced electron transfer
AUTHOR(S): Rau, Harald K.; DeJonge, Niels; Haehnel, Wolfgang
CORPORATE SOURCE: Institut fur Biologie II/Biochemie, Albert-Ludwigs-Universitat Freiburg, Freiburg, D-79104, Germany
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1998), 95(20), 11526-11531
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The design and chem. synthesis of two de novo four-helix bundle proteins is described; each protein has two bound cofactors. Their construction from purified peptides is based on the modular assembly of different amphiphilic helixes by chemoselective coupling to a cyclic peptide template. In the hydrophobic interior of the antiparallel four-helix bundle these proteins contain a heme in a binding pocket with two ligating His residues. A ruthenium tris(bipyridine) complex is covalently bound to different positions at the hydrophilic side of one of the heme-binding helixes. Laser-induced electron transfer across the varied distance through this helix has been studied and compared with a pathway anal. The UV-visible, CD, and mass spectra are consistent with the structure and orientation predetd. by the template.

IT **216884-15-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(modular synthesis of de novo-designed metalloproteins for light-induced electron transfer)

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:385683 HCAPLUS
DOCUMENT NUMBER: 127:5355
TITLE: Preparation of GnRH/reduced Pseudomonas exotoxin conjugates as sterilizing and anticancer agents
INVENTOR(S): Tolman, Richard L.; Lombardo, Victoria K.
PATENT ASSIGNEE(S): Merck and Co., Inc., USA; Tolman, Richard L.; Lombardo, Victoria K.

SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

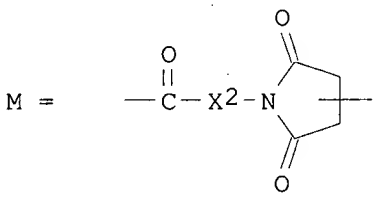
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9715317	A1	19970501	WO 1996-US17041	19961023
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9674717	A1	19970515	AU 1996-74717	19961023
EP 859624	A1	19980826	EP 1996-936921	19961023
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI				
JP 11514380	T2	19991207	JP 1996-516769	19961023

PRIORITY APPLN. INFO.: US 1995-5899P P 19951027
WO 1996-US17041 W 19961023

OTHER SOURCE(S): MARPAT 127:5355

GI

Q-Ser-Tyr-NCHCO-X^1-Arg-Y-Z
|
$(CH_2)_p$-B-$(CH_2)_m$-N-(amino acid)$_n$-L^1-S-rPE
|
R^1 I



AB GnRH conjugates I [rPE = reduced Pseudomonas exotoxin linked to L1 via the thiol S; X1 = Leu, Nle; Y = Pro, Hyp; Z = Gly-NH2, D-Ala-NH2, NHEt, NHPr, NHNHCONH2; Q = pGlu-His-Trp, Ac-Phe(Cl-4)-Phe(Cl-4)-Trp, 3-indolylpropionyl; p = 1-2; m = 1-4; n = 0-1; B = CH2, O, S, N; R1 = H, C1-6 alkyl, C3-8 cycloalkyl; (amino acid)n = naturally occurring L-amino acid of its D-stereoisomer; L1 = linker M, COCH2, COCH2CH2S; X2 = C1-5 alkylene, C6H4, C5-6 cycloalkylene] are constructed from GnRH or an analog thereof, a reduced Pseudomonas exotoxin, or a variant thereof, and a unique linking group. The conjugates are administered to male and female animals to sterilize said animals or to reduce tumors that require sex steroids for growth. The instant conjugates are therefore useful as sterilizing agents and anticancer agents. Thus, GnRH analog H-pGlu-His-Tyr-Ser-D-Lys(R)-Leu-Arg-Pro-Gly-NH2 (II; R = H) (solid-phase prepn. given) reacted with .beta.-maleimidopropionic acid N-hydroxysuccinimide ester to give adduct II (R = 3-maleimidopropyl). Reduced Pseudomonas exotoxin PE38QQR was then conjugated to adduct II (R = 3-maleimidopropyl).

IT **150954-12-4DP**, reaction products with reduced Pseudomonas exotoxin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of GnRH/reduced Pseudomonas exotoxin conjugates as sterilizing

and anticancer agents)

IT **150954-12-4P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of GnRH/reduced Pseudomonas exotoxin conjugates as sterilizing and anticancer agents)

L4 ANSWER 14 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:541126 HCAPLUS
DOCUMENT NUMBER: 125:276515
TITLE: Introduction of the Maleimide Function onto Resin-Bound Peptides: A Simple, High-Yield Process Useful for Discriminating among Several Lysines
AUTHOR(S): Marburg, S.; Neckers, A. C.; Griffin, P. R.
CORPORATE SOURCE: Department of Medicinal Chemistry, Merck Research Laboratories, Rahway, NJ, 07065, USA
SOURCE: Bioconjugate Chemistry (1996), 7(5), 612-616
CODEN: BCCHES; ISSN: 1043-1802
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Incorporation of Lys(Adpoc) [Adpoc = 1-(1'-adamantyl)-1-methylethoxycarbonyl] residues in solid phase peptide synthesis allows selective deprotection of this residue on the resin-bound peptide relative to other acid labile groups such as tert-butoxycarbonyl (Boc). Premature resin cleavage is avoided. A maleimide group, a useful thiol-capture reagent, was readily introduced by reacting the liberated amino function with an acylating agent contg. the maleimide functionality. Acidic cleavage from the resin, with an appropriate scavenging system, afforded peptides that are derivatized with a maleimide functionality on a specific lysine. This is advantageous for producing peptide-carrier conjugates of defined specificity, useful as immunogens, by maleimide-thiol coupling. The derivatization and resin removal chemistries appear to proceed in excellent yield with respect to the maleimide group. The structures were confirmed by tandem mass spectrometry.

IT **182250-63-1P 182250-64-2P 182250-65-3P**

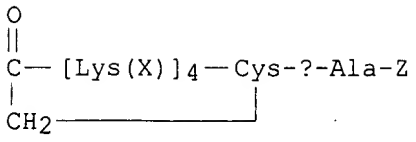
RL: SPN (Synthetic preparation); PREP (Preparation)

(use of adamantyl(methyl)ethoxycarbonyl protective groups in the solid-phase prepn. of maleimide-substituted lysine-contg. peptides)

L4 ANSWER 15 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:896110 HCAPLUS
DOCUMENT NUMBER: 123:314539
TITLE: Preparation of cytotoxic receptor ligand conjugates linked via lysine radicals.
INVENTOR(S): Lombardo, Victoria K.; Tolman, Richard L.
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: Brit. UK Pat. Appl., 46 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2282812	A1	19950419	GB 1994-20249	19941007
PRIORITY APPLN. INFO.:			US 1993-138516	19931015

OTHER SOURCE(S): MARPAT 123:314539
GI



I

AB Cytotoxic receptor ligand scaffolds (CRLS) (Lys)n(Unh)m(Sol)m(X)nZ (Unh = sterically unhindered groups; Sol = hydrophilic, solubilizing groups; n = 3-10; m = 0-5; X = receptor ligand; Z = cytotoxin), were prepd. Thus, BrCH2CO-(Lys)4-Cys-.beta.-Ala-OH, prepd. by solid phase synthesis on PAM resin, was stirred in aq. NaHCO3 for 48 h to give cyclic product (I; X = H, Z = OH). This was treated with BrCH2CO2H/DCC to give I (X = COCH2Br, Z = OH), which was coupled to D-Cys6-GnRH in phosphate buffer. The product I (X = COCH2-D-Cys6-GnRH, Z = OH) was coupled with BOC-NHCH2CH2NH2 using BOP/hydroxybenzotriazole followed by deprotection with CF3CO2H/anisole in CH2Cl2 to give I (X = COCH2-D-Cys6-GnRH, Z = NHCH2CH2NH2). This was N-bromoacetylated and conjugated to thiolated exotoxin PE-38M to give a title product contaminated with exotoxin PE-38M. The contaminated product showed a -[log(IC50)] = 8.2 in a competitive binding assay with 125I-buserelin in rat pituitary prepns. The products are claimed for use as chem. sterilants in animals.

IT **150954-12-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of cytotoxic receptor ligand conjugates linked via lysine radicals)

L4 ANSWER 16 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:836656 HCAPLUS
DOCUMENT NUMBER: 123:309577
TITLE: Improved tumor targeting with recombinant antibody-macrocycle conjugates
AUTHOR(S): Norman, Timothy J.; Parker, David; Royle, Louise; Harrison, Alice; Antoniw, Pari; King, David J.
CORPORATE SOURCE: Dep. Chemistry, Univ. Durham, Durham, DH1 3LE, UK
SOURCE: Journal of the Chemical Society, Chemical Communications (1995), (18), 1877-8
CODEN: JCCCAT; ISSN: 0022-4936
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 123:309577

AB Linkage of a macrocyclic complexing agent to a spaced tri-maleimide allows formation of a recombinant trivalent antibody by reaction with a .DELTA.-Cys Fab fragment of an engineered human antibody. Given the kinetic stability in vivo of the macrocyclic 90Y complex, the enhanced immunoreactivity of the trivalent recombinant antibody, and the fact that these trivalent antibodies clear rapidly from the blood, indicate the utility of these conjugates for tumor therapy.

IT **146733-82-6D**, conjugates with yttrium-90 and antibodies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(improved tumor targeting with recombinant antibody-macrocycle conjugates)

L4 ANSWER 17 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:605782 HCAPLUS
DOCUMENT NUMBER: 123:54133
TITLE: Annular antigen scaffolds comprising thioether linkages

INVENTOR(S): Cunningham, Barry; Hannah, John; Tolman, Richard L.
PATENT ASSIGNEE(S): Merck and Co., Inc., USA
SOURCE: Brit. UK Pat. Appl., 51 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2282813	A1	19950419	GB 1994-20263	19941007

PRIORITY APPLN. INFO.: US 1993-138514 19931015
OTHER SOURCE(S): MARPAT 123:54133

AB Scaffolds of antigens are prepd. by a convergent synthesis and coupling of sol. precursors comprising solubilizing groups. Cyclic peptide epitopes, known to be more effective immunogen than linear antigens because they are constrained to fewer conformations, are incorporated. In addn. to the epitopes, linear T-haptens may be incorporated at either the C- or the N-terminus of the scaffold construct. The scaffolds constitute effective synthetic vaccines. The scaffolds are cyclized via a thioether linkage, the ring of which comprises from 3 to 10 lysine radicals, to which the epitope or antigen is bonded. The epitope or antigen is preferably and HIV gp120 V3 loop peptide (HIV PND), a malarial peptide, a gonadotropin releasing hormone (GnRH) peptide or bacterial capsular polysaccharide. In example, an annular antigen scaffold core was prepd., conjugated with HIV PND and used for detn. of anti-HIV IgG antibody in sera and antibody induction for neutralizing HIV infectivity, or conjugated with GnRH peptides and used as immunogen and tested for its binding specificity to pituitary GnHR receptor.

IT **150954-12-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(annular antigen scaffolds comprising thioether linkages)

L4 ANSWER 18 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:240952 HCAPLUS
DOCUMENT NUMBER: 122:50243
TITLE: Improved tumor targeting with chemically cross-linked recombinant antibody fragments
AUTHOR(S): King, David J.; Turner, Alison; Farnsworth, Andrew P. H.; Adair, John R.; Owens, Raymond J.; Pedley, R. Barbara; Baldock, Darren; Proudfoot, Karen A.; Lawson, Alastair D. G.; et al.
CORPORATE SOURCE: Celltech Ltd., Slough, Berkshire, SL1 4EN, UK
SOURCE: Cancer Research (1994), 54(23), 6176-85
CODEN: CNREA8; ISSN: 0008-5472
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The construction and use of recombinant chimeric and later fully humanized (CDR-grafted) antibodies to tumor-assocd. antigens has reduced the immune response generated to these antibodies in clin. studies. However, their long circulating half-life is a disadvantage for tumor imaging and therapy. Fragments such as F(ab')2, Fab', Fv and single chain Fv (scFv) offer faster blood clearance but also lower overall tumor doses. We have examd. the tumor targeting of several novel fragments produced by chem. crosslinking of Fab' or scFv to dimeric and trimeric species. To facilitate crosslinking of Fab' fragments, a chimeric B72.3 Fab' fragment has been expressed with a hinge sequence contg. a single cysteine residue. B72.3 scFv was also produced with a similar hinge region peptide attached to the COOH terminus to allow crosslinking. These fragments, Fab'.DELTA.Cys and scFv'.DELTA.Cys were cross-linked with linkers contg.

two or three maleimide groups to produce dimeric and trimeric mols. with increased avidity for antigen. Cross-linkers were also designed to contain a 12-N-4 macrocycle capable of stable radiolabeling with 90Y. This allowed the prodn. of site-specifically-labeled, fully immunoreactive proteins. Biodistribution studies in the nude mouse LS174T xenograft model with scFv, di-scFv, and tri-scFv demonstrated that these fragments clear extremely rapidly from the circulation and give rise to only low levels of activity accumulated at the tumor. Di-Fab (DFM) and tri-Fab (TFM) however, accumulated relatively high levels of activity at the tumor with high tumor:blood ratios generated, demonstrating improved targeting compared to IgG. CB72.3 90Y-labeled tri-Fab was found not to accumulate in the kidney or the bone, resulting in an attractive antibody fragment for tumor therapy.

IT **146733-82-6P 146754-65-6P 146754-67-8P 160176-67-0P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(tumor targeting for radioimmunotherapy with chem. cross-linked recombinant antibody fragments)

L4 ANSWER 19 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:23543 HCAPLUS
DOCUMENT NUMBER: 120:23543
TITLE: Chimeric toxins binding to the GnRH receptor
INVENTOR(S): Lombardo, Victoria K.; Tolman, Richard L.; Marburg, Stephen
PATENT ASSIGNEE(S): Merck and Co., Inc., USA, USA
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9315751	A1	19930819	WO 1993-US1263	19930212
W: AU, BB, BG, BR, CA, CZ, FI, HU, JP, KR, LK, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SK, UA, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG				
AU 9336652	A1	19930903	AU 1993-36652	19930212
ZA 9300988	A	19930920	ZA 1993-988	19930212

PRIORITY APPLN. INFO.: US 1992-836031 19920214
US 1993-9186 19930126
WO 1993-US1263 19930212

OTHER SOURCE(S): MARPAT 120:23543

AB Analogs of GnRH are functionalized with unique linking groups so that they may be coupled to a cell-killing mol. The chimeric toxin comprises a GnRH analog, a linking group, and a toxin component. The chimeric toxin is administered to male and female animals where it is transported to organs contg. cells with GnRH receptors such as pituitary glands in order to reduce secretions of sex steroids which results in sterility or in the redn. of tumors that require sex steroids for growth. The compds. are used as sterilizing agents and anticancer agents. The GnRH derivs. modified with the linking groups provide an advantage over prior chimera prepd. by conjugation in that upon amino acid anal. of the conjugate, the modified GnRH deriv. releases an unnatural amino acid which is readily quantified thus reveling the degree of conjugation between the GnRH analog and the toxin. Toxin Pe-38M (Pseudomonas exotoxin A with deletions of residues 1-252 and 365-380, modification at the N-terminus, and 3 C-terminal lysines mutated) was recombinantly prepd., thiolated with N-acetylhomocysteine thiolactione, and conjugated with

[N.epsilon.-maleimidopropanoyl)-6-D-Lys]GnRH (prepd. by solid phase peptide synthesis and reaction with .beta.-maleimidopropionic acid N-hydroxysuccinimide ester). During amino acid anal. the linking group breaks down to .beta.-Ala.

IT **150954-12-4P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, with modified exotoxin PE-38M, in prepn. of gonadotropin-releasing hormone analog-toxin conjugate)

L4 ANSWER 20 OF 21 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1993:211310 HCAPLUS

DOCUMENT NUMBER: 118:211310

TITLE: Tri- and tetra-valent monospecific antigen-binding proteins

INVENTOR(S): King, David John; Turner, Alison; Beeley, Nigel Robert Arnold; Millican, Thomas Andrew

PATENT ASSIGNEE(S): Celltech Ltd., UK

SOURCE: PCT Int. Appl., 64 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

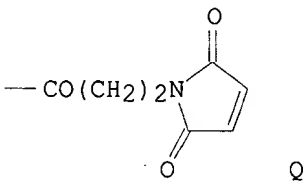
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9222583	A2	19921223	WO 1992-GB1047	19920611
WO 9222583	A3	19930401		
W: AU, CA, FI, JP, KR, NO, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
AU 9219716	A1	19930112	AU 1992-19716	19920611
EP 560947	A1	19930922	EP 1992-912329	19920611
EP 560947	B1	20000503		
R: GB, GB, GB, GB				
ZA 9204271	A	19931213	ZA 1992-4271	19920611
JP 06502657	T2	19940324	JP 1992-511083	19920611
JP 3373849	B2	20030204		
AT 192457	E	20000515	AT 1992-912329	19920611
ES 2146212	T3	20000801	ES 1992-912329	19920611
NO 9300440	A	19930402	NO 1993-440	19930209
US 6511663	B1	20030128	US 2000-664377	20000918

PRIORITY APPLN. INFO.:

GB 1991-12536	A	19910611
WO 1992-GB1047	A	19920611
US 1994-232401	B3	19940425
US 1995-456915	B1	19950601

GI



AB Tri- or tetravalent monospecific antigen-binding proteins comprising 3 or 4 antibody Fab fragments bound covalently to each other by a connecting structure are prepd. A labeling or effector group (e.g. a macrocycle chelating a radioisotope) can be attached and the whole construct can then

used in the treatment or diagnosis of, e.g., cancer. NHZ(CH2)4CHZNHCOC[(CH2)4NHZ]HNHZ (Z = benzyloxycarbonyl) was dissolved in DMSO and N-methylmorpholine was added to the soln. followed by succinimidyl maleimido propionate in DMSO. The mixt. was slightly heated and the resulting product was worked up and purified to give crosslinking agent MalNH(CH2)4CHZNHCOCH[(CH2)4NHMal]NHMal (I; Mal = Q; Z = as above). Chimeric Fab' fragments of monoclonal antibody B72.3 (specific for tumor-assocd. glycoprotein TAG72), contg. a single hinge thiol group, were prepd. and crosslinked the tri-maleimide linker I to make a tri-Fab protein. Characterization and biodistribution studies on the tri-Fab protein are described. Other tri- and tetra-maleimide linkers were prepd. and characterized as well.

IT **146733-82-6DP**, conjugates with Fab fragments of monoclonal antibody to tumor-assocd. antigen TAG-72 **146754-60-1DP**, conjugates with Fab fragments of monoclonal antibody to tumor-assocd. antigen TAG-72 **146754-61-2DP**, conjugates with Fab fragments of monoclonal antibody to tumor-assocd. antigen TAG-72
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and characterization of)

IT **146754-65-6P 146754-67-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, in maleimide crosslinker synthesis)

IT **146754-61-2P**
RL: PREP (Preparation)
(prepn. of, as tetravalent maleimide crosslinker for prepn. of tetravalent antibody Fab)

IT **146733-82-6P 146754-60-1P**
RL: PREP (Preparation)
(prepn. of, as trivalent maleimide crosslinker for prepn. of trivalent antibody Fab)

L4 ANSWER 21 OF 21 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1991:82539 HCAPLUS
DOCUMENT NUMBER: 114:82539
TITLE: Use of carboxypeptidase Y for the introduction of probes into proteins via their carboxy terminus
AUTHOR(S): Wilchek, Meir; Schwarz, Alexander; Wandrey, Christian; Bayer, Edward A.
CORPORATE SOURCE: Dep. Biophys., Weizmann Inst. Sci., Rehovot, 76100, Israel
SOURCE: Pept.: Chem., Struct. Biol., Proc. Am. Pept. Symp., 11th (1990), Meeting Date 1989, 1038-40. Editor(s): Rivier, Jean E.; Marshall, Garland R. ESCOM Sci. Pub.: Leiden, Neth.
CODEN: 56XTA7
DOCUMENT TYPE: Conference
LANGUAGE: English

AB A symposium on the derivatization of protein at their C terminus by biocytin amide or N.epsilon.-maleimidopropionyl-L-lysine amide in the presence of carboxypeptidase Y.

IT **132034-12-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(derivatization by, of proteins at C-terminus in presence of carboxypeptidase Y)

=>
=>

=> fil caold
FILE 'CAOLD' ENTERED AT 15:26:15 ON 20 MAY 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

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=> s l3
L5 0 L3

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=> fil reg
FILE 'REGISTRY' ENTERED AT 15:26:28 ON 20 MAY 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 19 MAY 2003 HIGHEST RN 518003-32-2
DICTIONARY FILE UPDATES: 19 MAY 2003 HIGHEST RN 518003-32-2

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=>
=>

=> d sqide l3 1-54

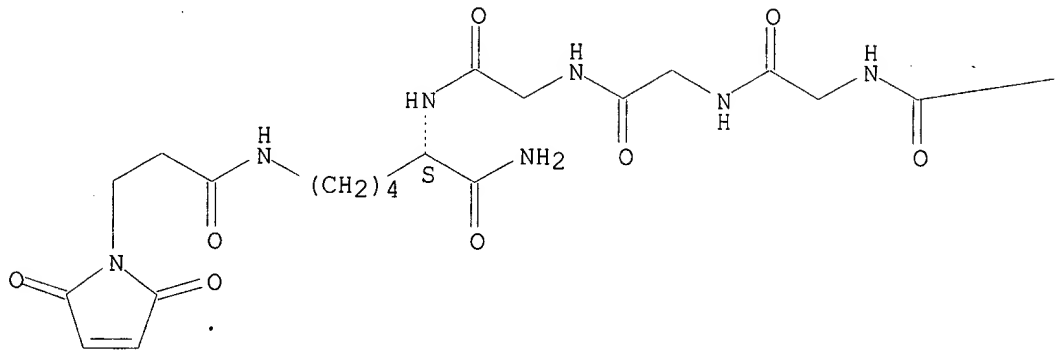
L3 ANSWER 1 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 475558-10-2 REGISTRY
CN L-Lysinamide, N-[1-oxo-4-(triethylammonio)butyl]glycylglycylglycyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 4
NTE modified (modifications unspecified)

SEQ 1 GGGK

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C29 H49 N8 O8
CI COM
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



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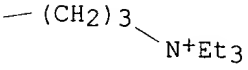


1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

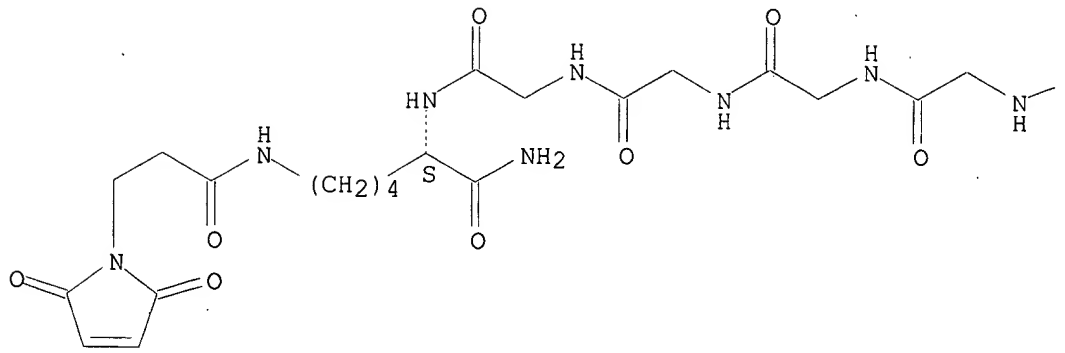
L3 ANSWER 2 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 475558-09-9 REGISTRY
CN L-Lysinamide, N-[1-oxo-4-(triethylammonio)butyl]glycylglycylglycylglycylgl ycyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 5
NTE modified (modifications unspecified)

SEQ 1 GGGGK

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C33 H55 N10 O10
CI COM
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



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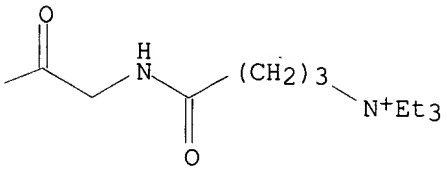


1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 3 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 446037-14-5 REGISTRY
CN L-Lysinamide, L-histidyl-D-alanyl-L-.alpha.-aspartylglycyl-L-isoleucyl-L-phenylalanyl-L-seryl-L-lysyl-L-alanyl-L-tyrosyl-L-arginyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysyl-L-leucyl-L-leucylglycyl-L-glutaminyl-L-leucyl-L-seryl-L-alanyl-L-arginyl-L-asparaginyl-L-tyrosyl-L-leucyl-L-histidyl-L-seryl-L-leucyl-L-methionyl-L-alanyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 29
NTE modified (modifications unspecified)

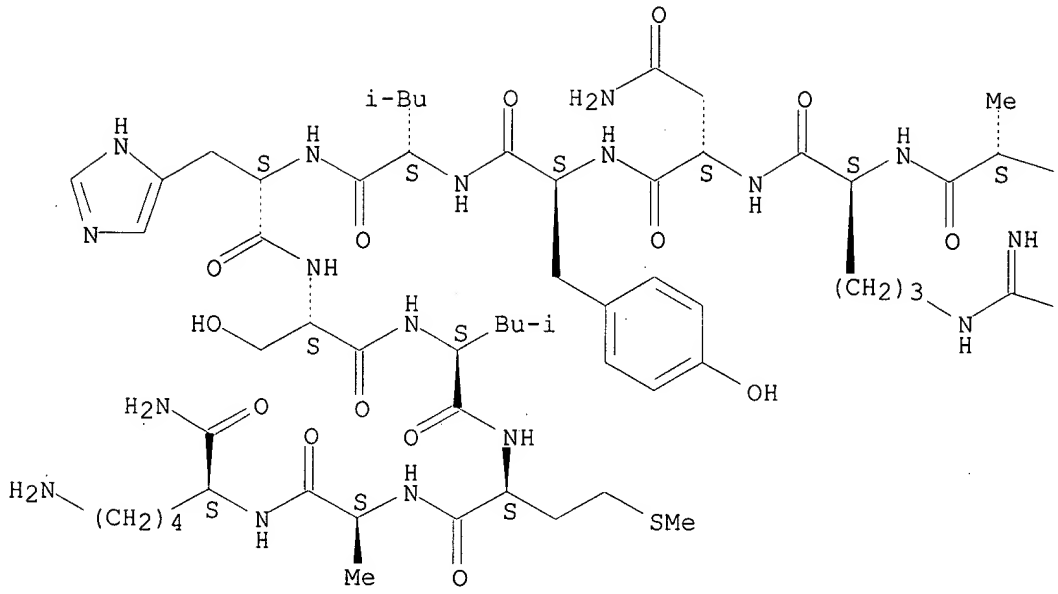
type	------ location ------		description
stereo	Ala-2	-	D

SEQ 1 HADGIFSKAY RKLLGQLSAR NYLHSLMAK

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C155 H244 N46 O41 S
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PAGE 1-A



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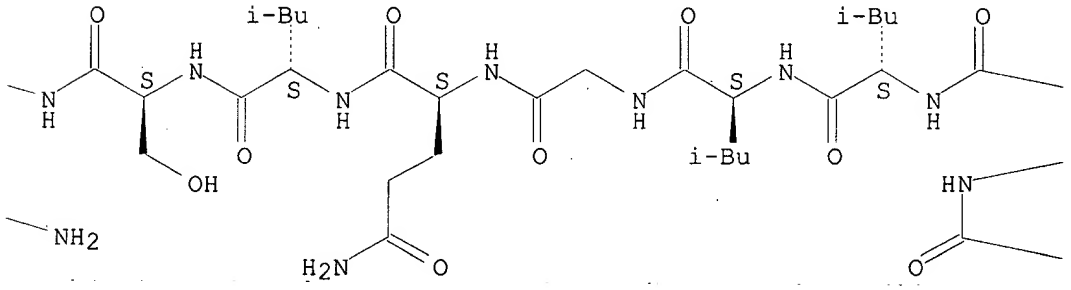

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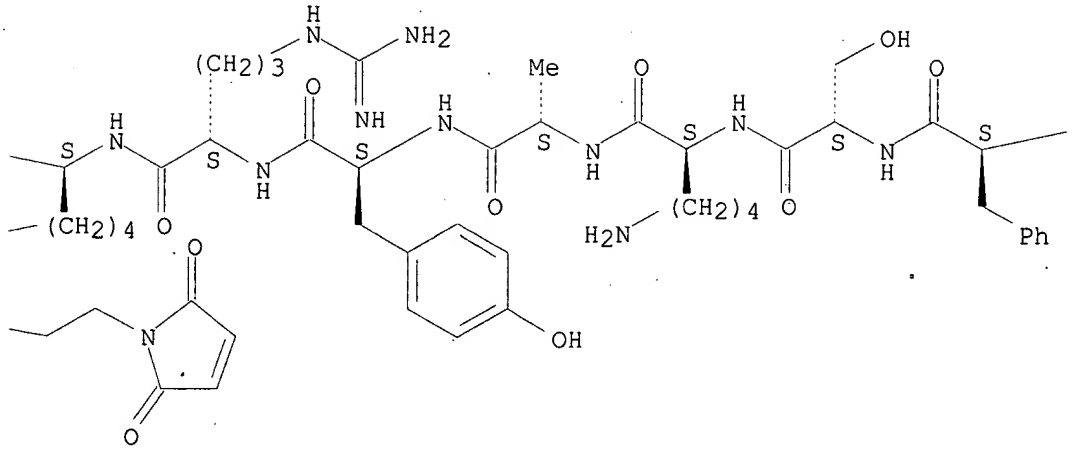

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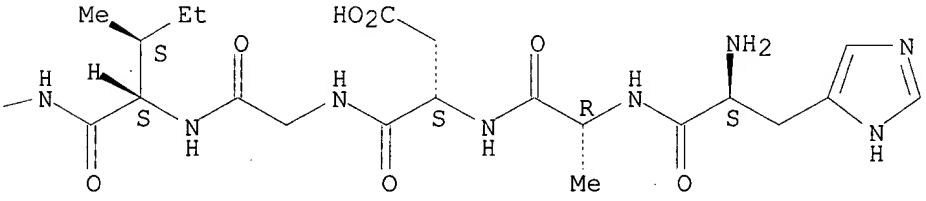


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 4 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 446037-12-3 REGISTRY
CN L-Lysinamide, L-histidyl-D-alanyl-L-.alpha.-aspartylglycyl-L-methionyl-L-phenylalanyl-L-asparaginyl-L-lysyl-L-alanyl-L-tyrosyl-L-arginyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysyl-L-alanyl-L-leucylglycyl-L-glutaminyl-L-leucyl-L-seryl-L-alanyl-L-arginyl-L-lysyl-L-tyrosyl-L-leucyl-L-histidyl-L-seryl-L-leucyl-L-methionyl-L-alanyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 29
NTE modified (modifications unspecified)

type	------ location ------		description
stereo	Ala-2	-	D

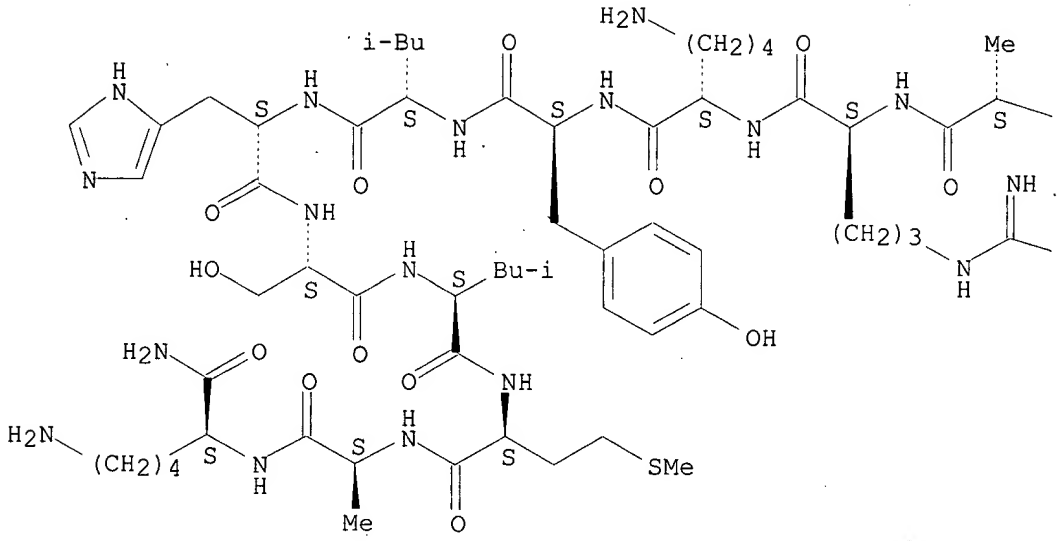
SEQ 1 HADGMFNKAY RKALGQLSAR KYLHSLMAK

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C154 H243 N47 O40 S2

SR CA
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

PAGE 1-A



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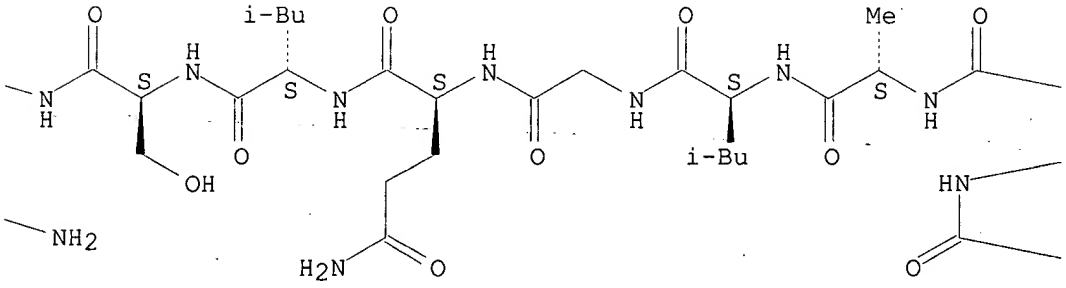

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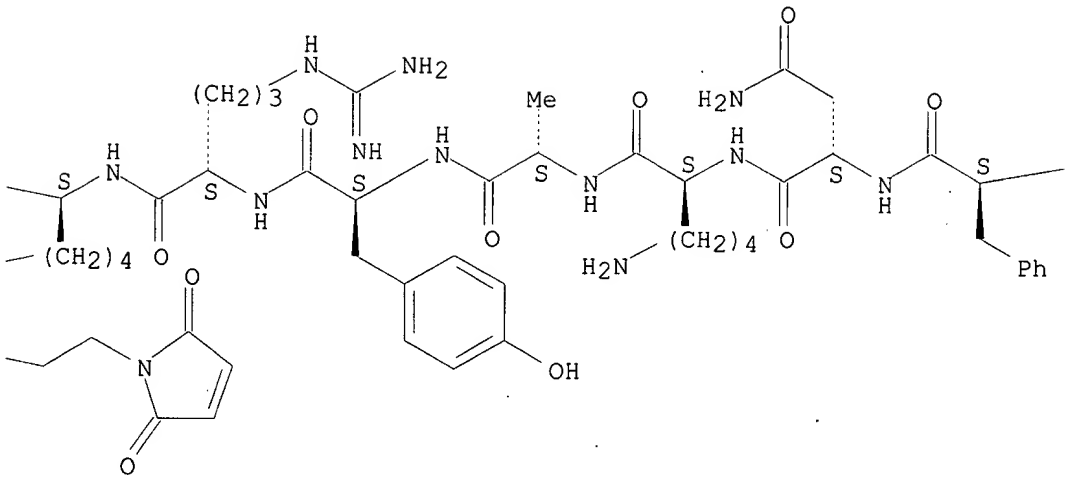

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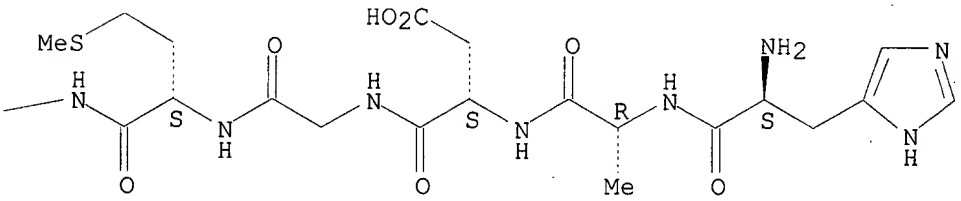


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 5 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 329716-74-7 REGISTRY
CN L-Lysinamide, N-acetyl-L-tyrosylglycylglycyl-L-phenylalanyl-L-leucyl-L-arginyl-L-arginyl-L-isoleucyl-L-arginyl-L-prolyl-L-lysyl-L-leucyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 8: PN: WO0117568 SEQID: 16 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 13
NTE modified (modifications unspecified)

PATENT ANNOTATIONS (PNTE):

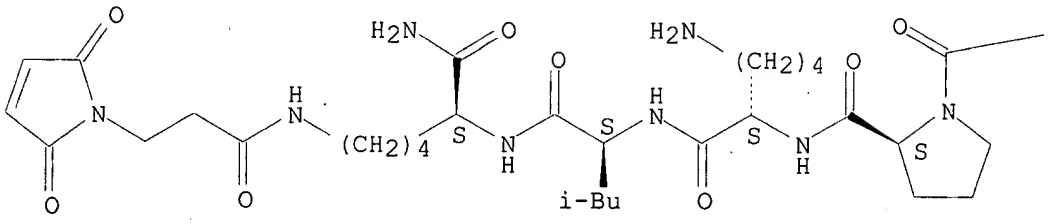
Sequence Source	Patent Reference
Not Given	WO2001017568 claimed SEQID 16

SEQ 1 YGGFLRRIRP KLK

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C84 H134 N26 O18
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



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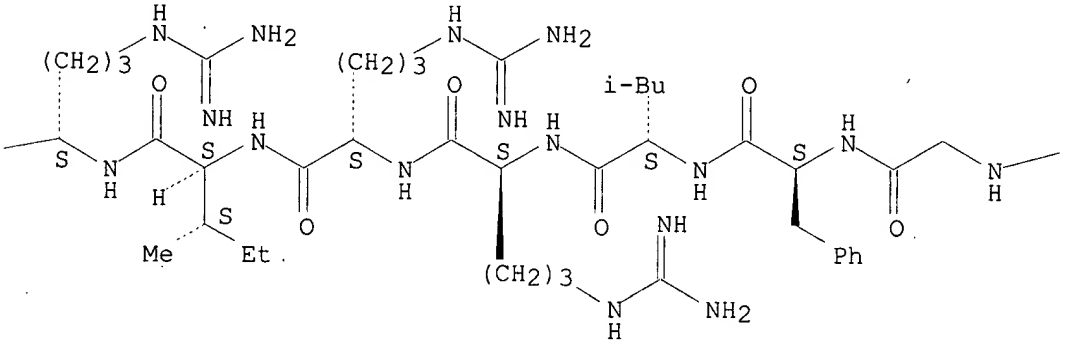

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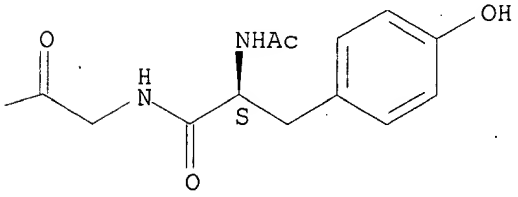


1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 6 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 329716-72-5 REGISTRY
CN L-Lysinamide, N-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-

4-yl]-1-oxopentyl]-L-tyrosylglycyl-L-arginyl-L-lysyl-L-lysyl-L-arginyl-L-arginyl-L-glutaminyl-L-arginyl-L-arginyl-L-arginyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]- (9CI) (CA INDEX NAME)

OTHER NAMES:
CN 6: PN: WO0117568 SEQID: 14 claimed sequence
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 12
NTE modified (modifications unspecified)

PATENT ANNOTATIONS (PNTE):

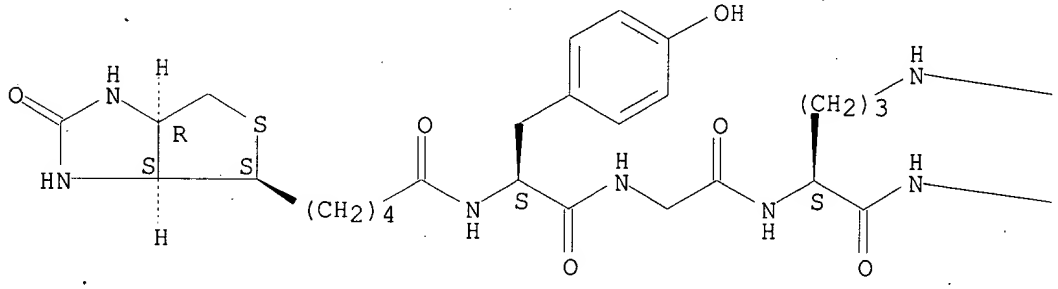
Sequence Source	Patent Reference
Not Given	WO2001017568 claimed SEQID 14

SEQ 1 YGRKKRRQRR RK

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C87 H150 N38 O19 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



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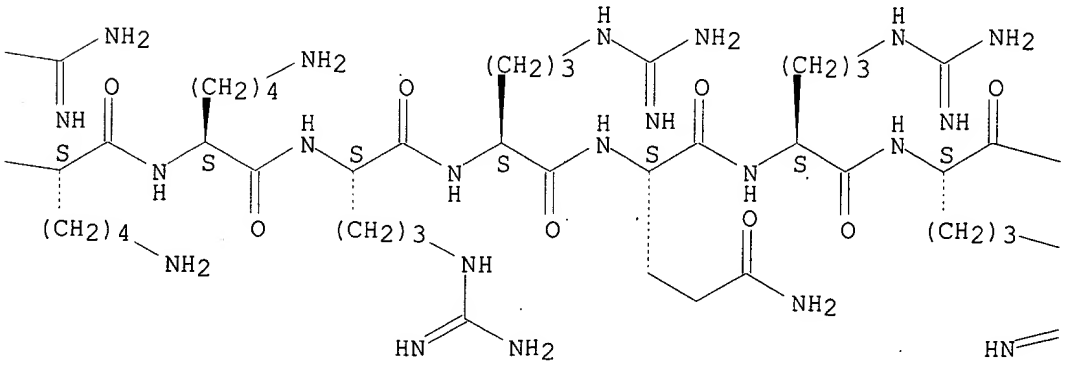

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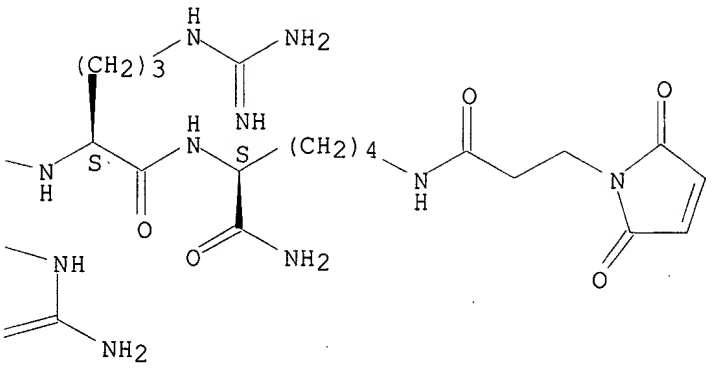


1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 7 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307315-16-8 REGISTRY
CN L-Cysteine, L-seryl-L-alanyl-L-asparaginyl-L-seryl-L-asparaginyl-L-prolyl-L-alanyl-L-methionyl-L-alanyl-L-prolyl-L-arginyl-L-.alpha.-glutamyl-L-arginyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysyl-L-alanylglycyl-L-cysteinyl-L-lysyl-L-asparaginyl-L-phenylalanyl-L-phenylalanyl-L-tryptophyl-L-lysyl-L-threonyl-L-phenylalanyl-L-threonyl-L-seryl-, cyclic (17.fwdarw.28)-disulfide (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 28
NTE modified (modifications unspecified)

type	------ location ------		description
bridge	Cys-17	- Cys-28	disulfide bridge

SEQ 1 SANSNPAMAP RERKAGCKNF FWKTFTSC

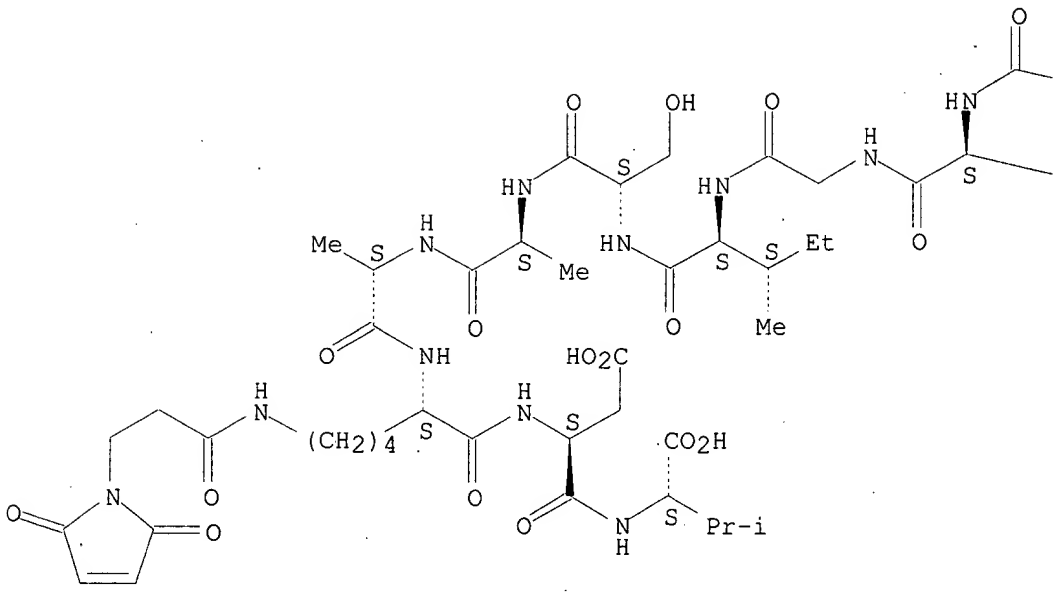
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C144 H212 N42 O42 S3
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER
1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 8 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307315-11-3 REGISTRY
CN L-Valine, L-cysteinyl-L-asparaginyl-L-leucyl-L-lysyl-L-.alpha.-glutamyl-L-.alpha.-aspartylglycyl-L-isoleucyl-L-seryl-L-alanyl-L-alanyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysyl-L-.alpha.-aspartyl-(9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 14
NTE modified (modifications unspecified)

SEQ 1 CNLKEDGISA AKDV
MF C67 H108 N18 O26 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



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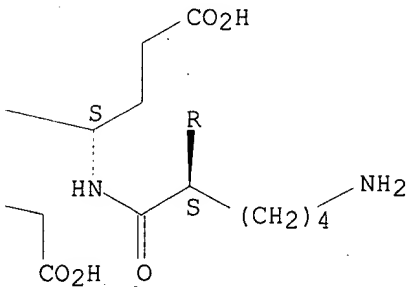

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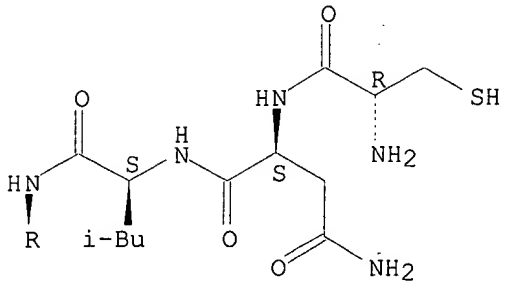


1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

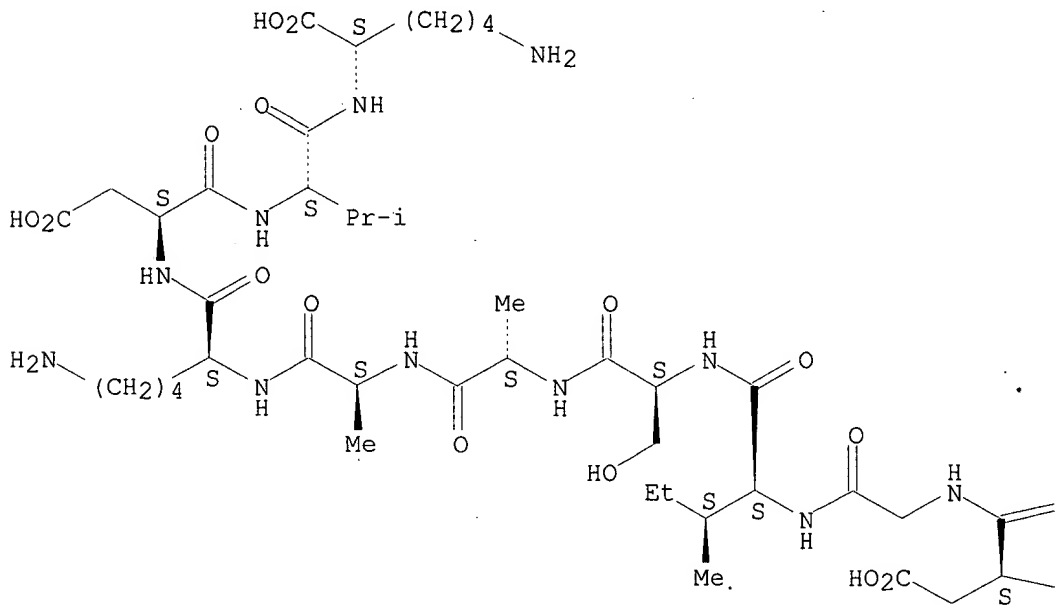
L3 ANSWER 9 OF 54 REGISTRY COPYRIGHT 2003 ACS

RN 307315-10-2 REGISTRY
CN L-Lysine, N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysyl-L-cysteinyl-L-asparaginyl-L-leucyl-L-lysyl-L-.alpha.-glutamyl-L-.alpha.-aspartylglycyl-L-isoleucyl-L-seryl-L-alanyl-L-alanyl-L-lysyl-L-.alpha.-aspartyl-L-valyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 16
NTE modified (modifications unspecified)

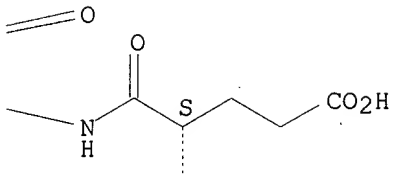
SEQ 1 KCNLKEDGIS AAKDVK
MF C79 H132 N22 O28 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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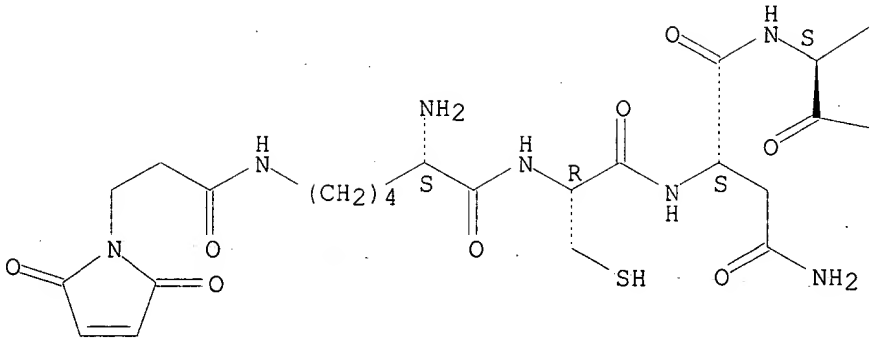

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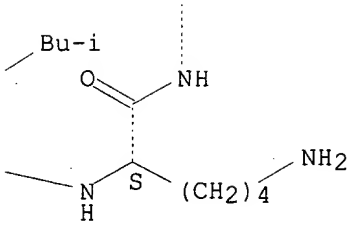


1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 10 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307315-09-9 REGISTRY
CN L-Argininamide, L-histidyl-L-alanyl-L-.alpha.-glutamylglycyl-L-threonyl-L-phenylalanyl-L-threonyl-L-seryl-L-.alpha.-aspartyl-L-valyl-L-seryl-L-seryl-L-tyrosyl-L-leucyl-L-.alpha.-glutamylglycyl-L-glutaminyl-L-alanyl-L-alanyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysyl-L-.alpha.-glutamyl-L-phenylalanyl-L-isoleucyl-L-alanyl-L-tryptophyl-L-leucyl-L-valyl-L-lysylglycyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 39: PN: WO0069911 PAGE: 73 claimed protein
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 30
NTE modified (modifications unspecified)

PATENT ANNOTATIONS (PNTE):

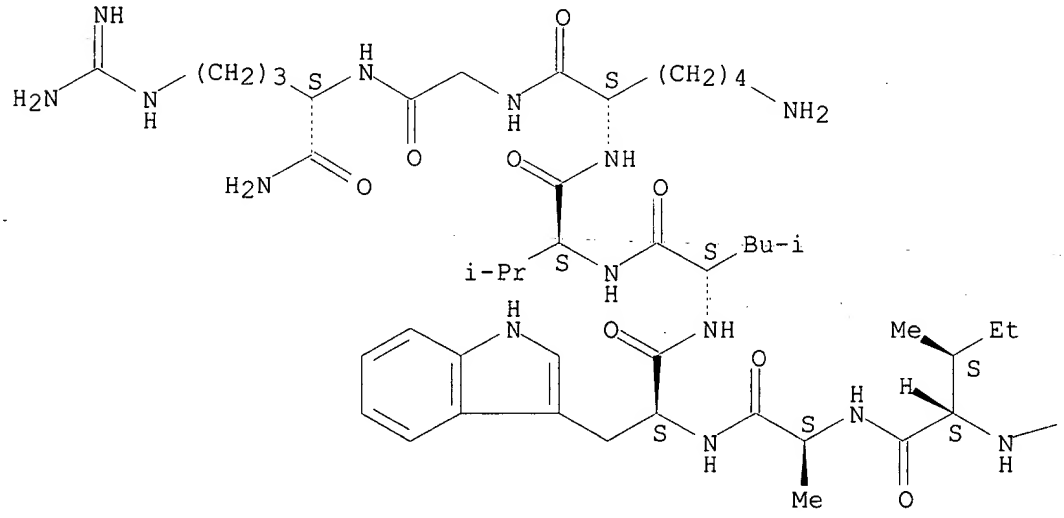
Sequence Source	Patent Reference
Not Given	WO2000069911 claimed PAGE 73

SEQ 1 HAEGTFTSDV SSYLEGQAAK EFIAWLVKGR

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C156 H231 N41 O48
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A



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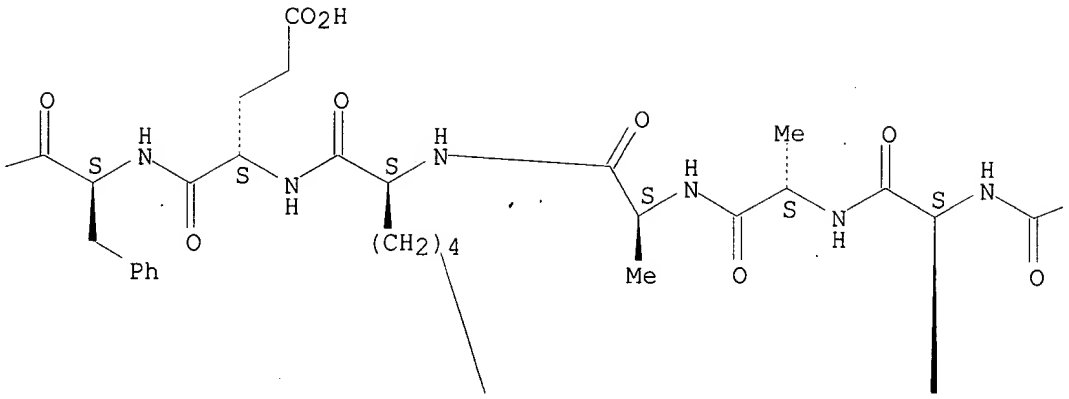

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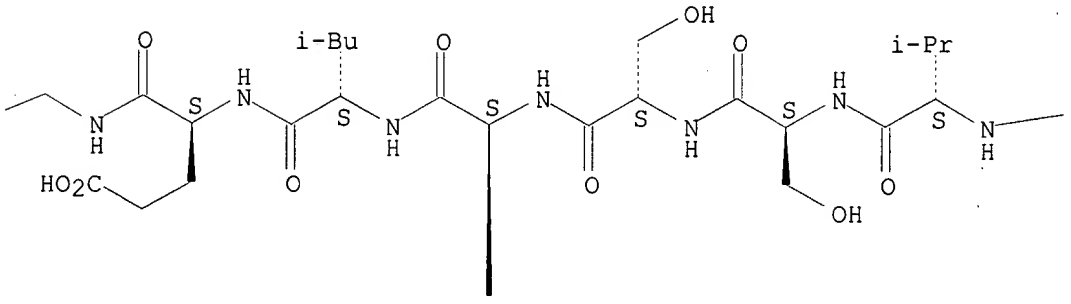

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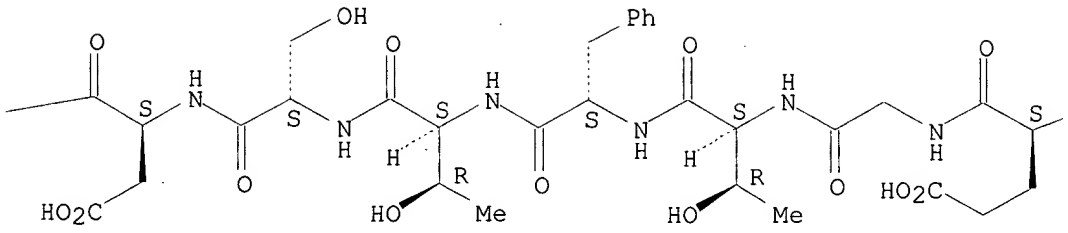

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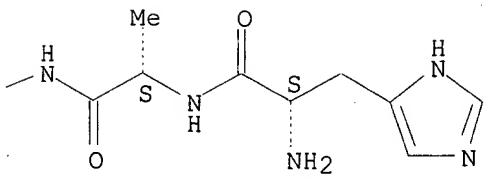
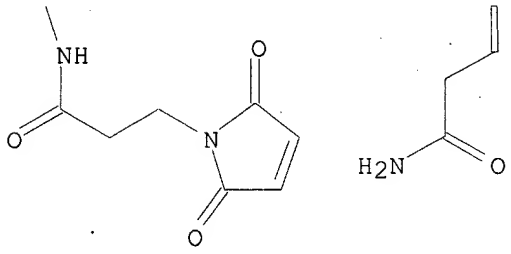


PAGE 2-B



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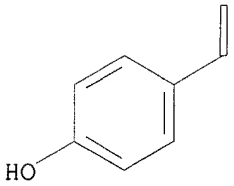


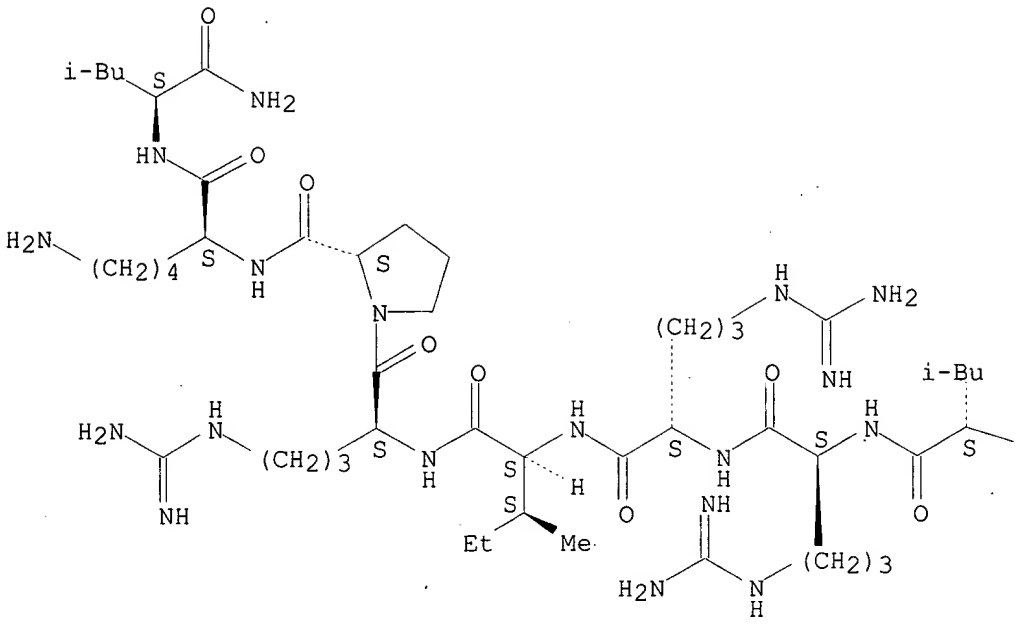
2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 11 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307314-80-3 REGISTRY
CN L-Leucinamide, N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysyl-L-tyrosylglycylglycyl-L-phenylalanyl-L-leucyl-L-arginyl-L-arginyl-L-isoleucyl-L-arginyl-L-prolyl-L-lysyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 13
NTE modified (modifications unspecified)

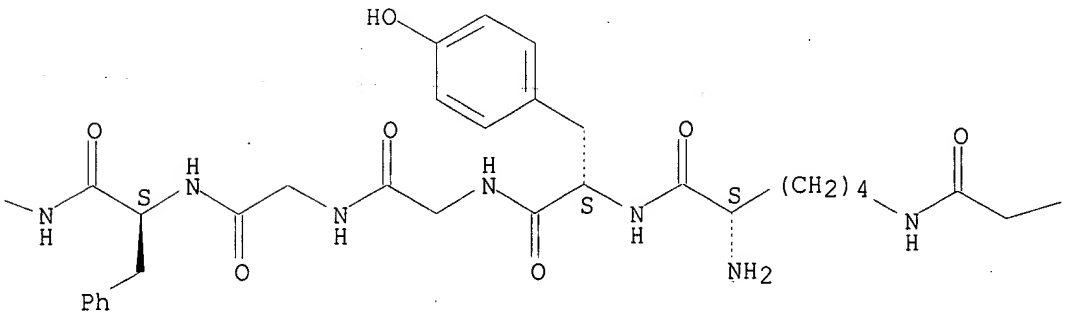
SEQ 1 KYGGFLRRIR PKL
MF C82 H132 N26 O17
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

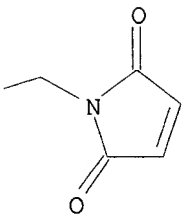
Absolute stereochemistry.

PAGE 1-A



PAGE 1-B





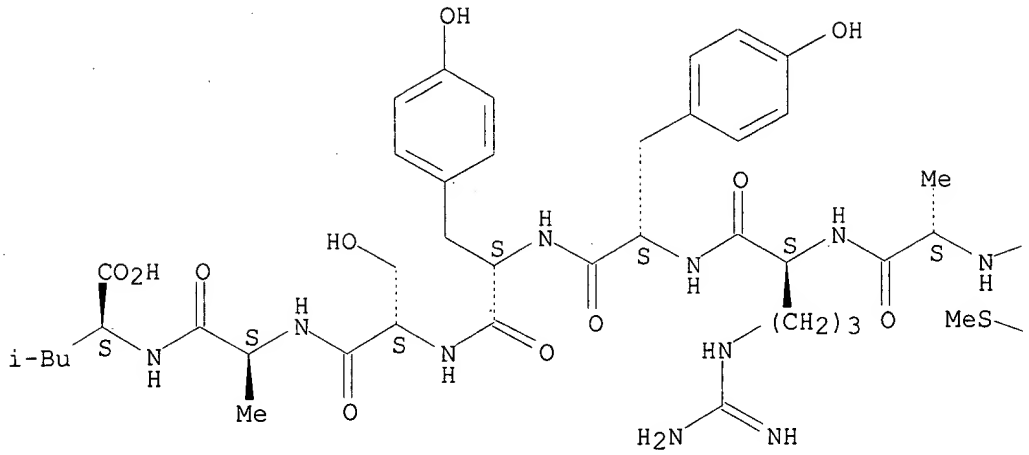
1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 12 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307314-79-0 REGISTRY
CN L-Leucine, N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysyl-L-tyrosyl-L-prolyl-L-seryl-L-lysyl-L-prolyl-L-.alpha.-aspartyl-L-asparaginyl-L-prolylglycyl-L-.alpha.-glutamyl-L-.alpha.-aspartyl-L-alanyl-L-prolyl-L-alanyl-L-.alpha.-glutamyl-L-.alpha.-aspartyl-L-methionyl-L-alanyl-L-arginyl-L-tyrosyl-L-tyrosyl-L-seryl-L-alanyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 25
NTE modified (modifications unspecified)

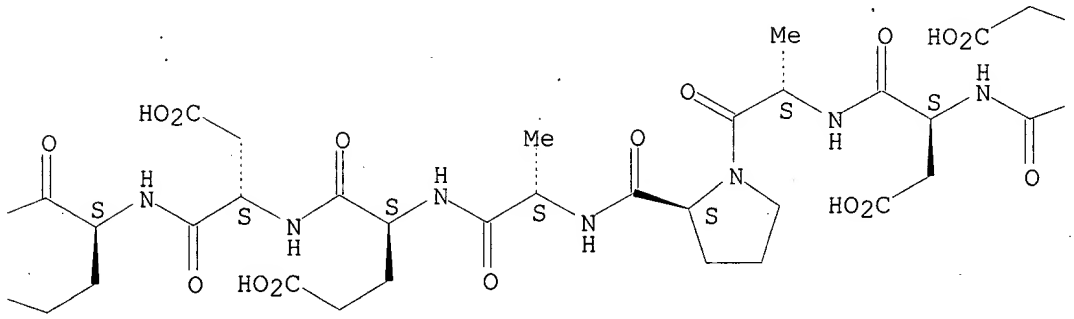
SEQ 1 KYPSKPDNPG EDAPAEDMAR YYSAL
MF C129 H186 N32 O45 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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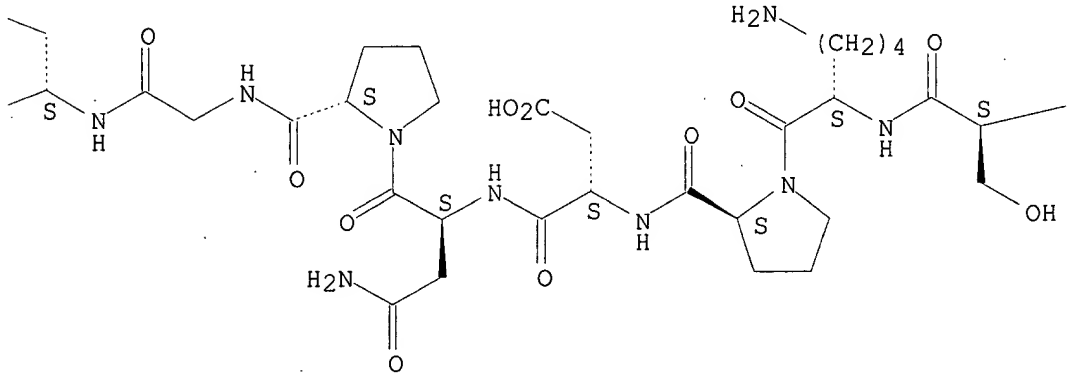
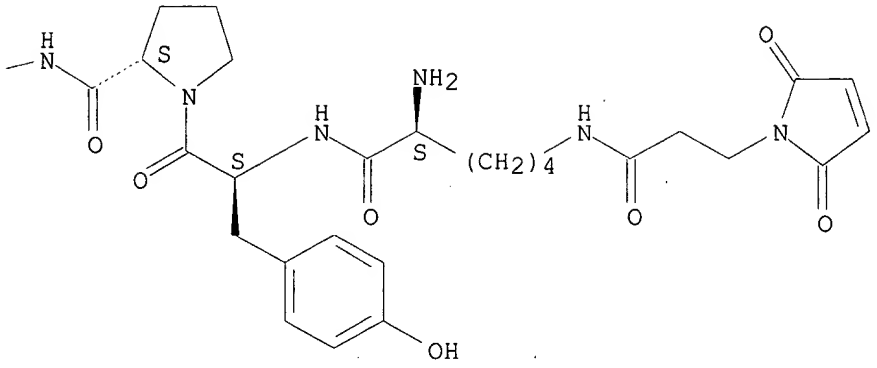


PAGE 1-D



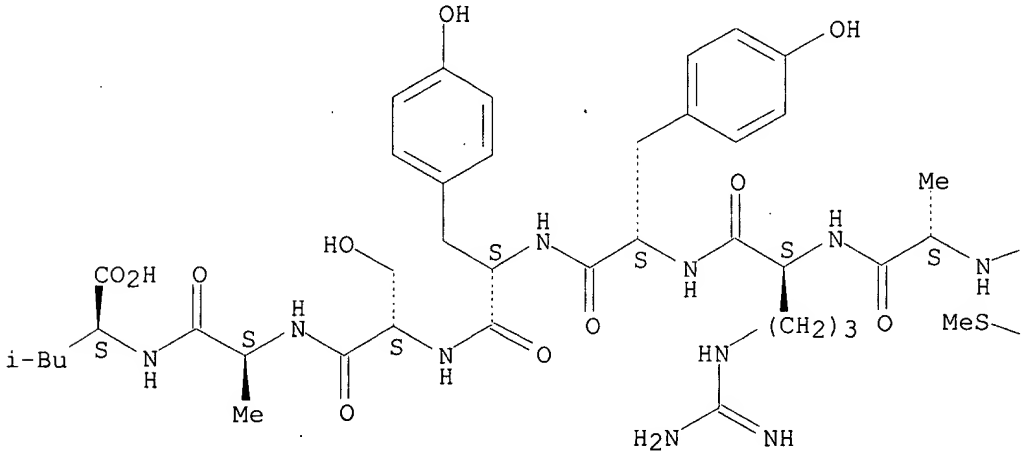
1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 13 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307314-78-9 REGISTRY
CN L-Leucine, N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysyl-L-tyrosyl-L-prolyl-L-seryl-L-lysyl-L-prolyl-L-glutaminyl-L-asparaginyl-L-prolylglycyl-L-.alpha.-glutamyl-L-.alpha.-aspartyl-L-alanyl-L-prolyl-L-alanyl-L-.alpha.-glutamyl-L-.alpha.-aspartyl-L-methionyl-L-alanyl-L-arginyl-L-tyrosyl-L-tyrosyl-L-seryl-L-alanyl- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 25
NTE modified (modifications unspecified)

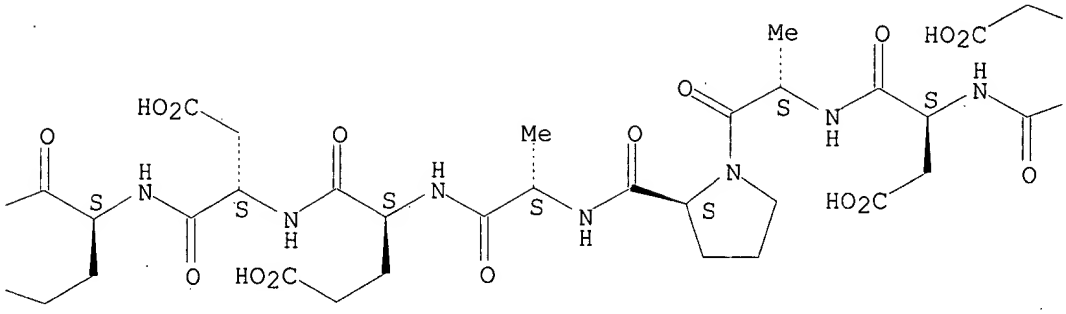
SEQ 1 KYPSKPENPG EDAPAEDMAR YYSAL
MF C130 H188 N32 O45 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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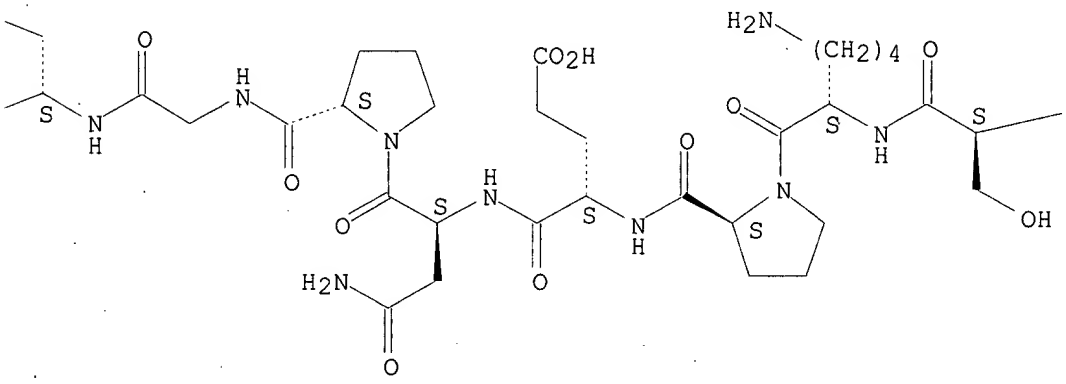
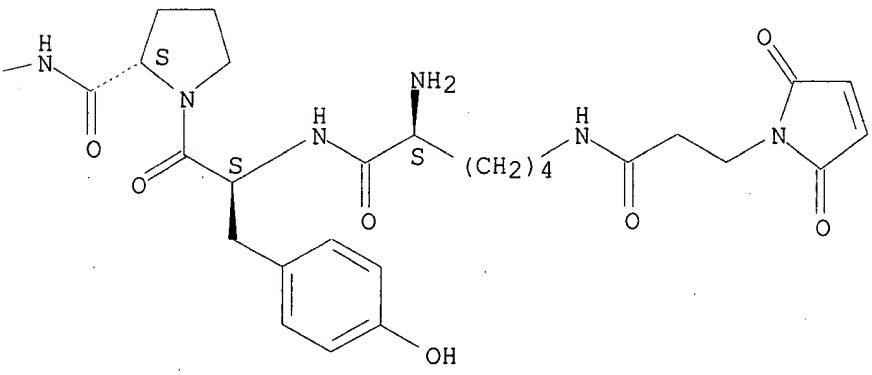


PAGE 1-D



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 14 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307314-73-4 REGISTRY
CN L-Lysinamide, 1-acetyl-L-prolyl-L-arginyl-L-lysyl-L-leucyl-L-tyrosyl-L-.alpha.-aspartyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 7
NTE modified (modifications unspecified)

SEQ 1 PRKLYDK

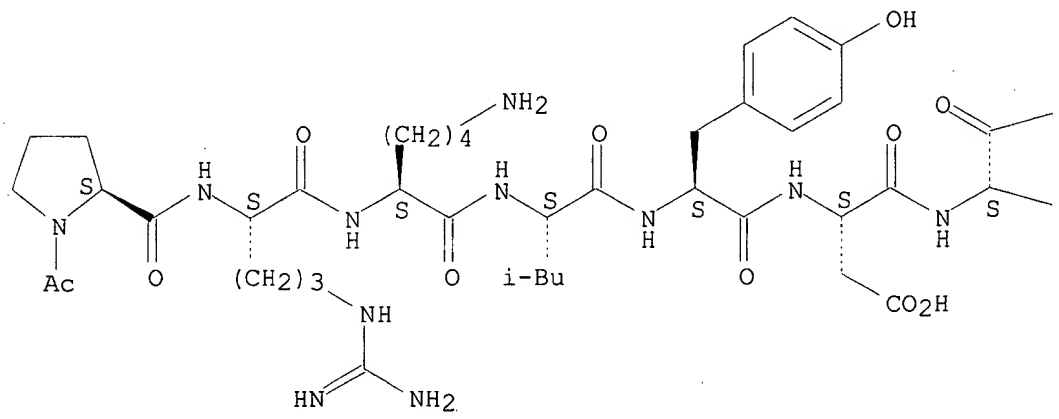
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C51 H78 N14 O14 . 2 C2 H F3 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

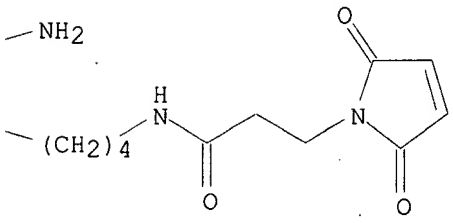
CRN 307314-72-3
CMF C51 H78 N14 O14

Absolute stereochemistry.

PAGE 1-A



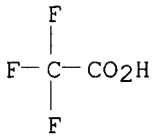
PAGE 1-B



CM 2

CRN 76-05-1

CMF C2 H F3 O2



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

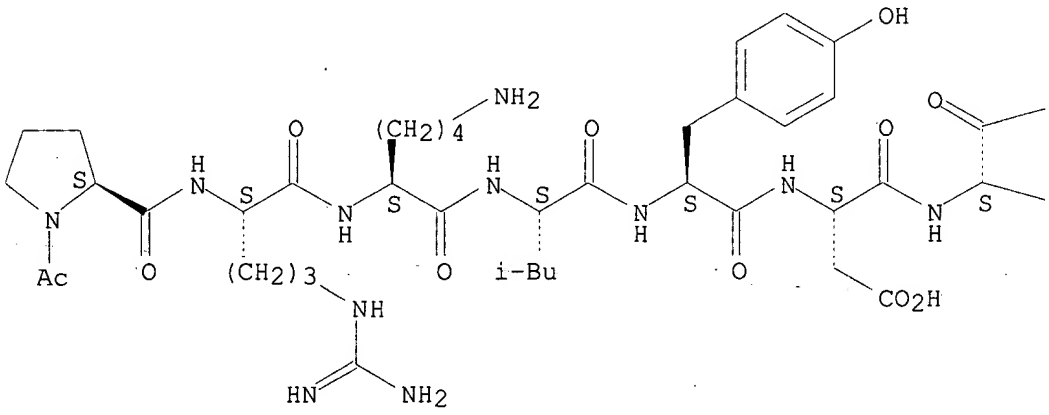
L3 ANSWER 15 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307314-72-3 REGISTRY
CN L-Lysinamide, 1-acetyl-L-prolyl-L-arginyl-L-lysyl-L-leucyl-L-tyrosyl-L-.alpha.-aspartyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 7
NTE modified (modifications unspecified)

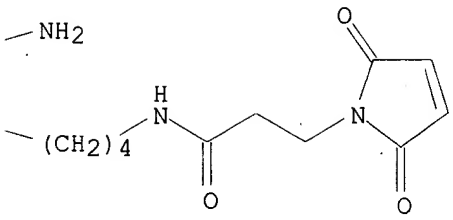
SEQ 1 PRKLYDK

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C51 H78 N14 O14
CI COM
SR CA

Absolute stereochemistry.

PAGE 1-A





L3 ANSWER 16 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307314-71-2 REGISTRY
CN L-Lysinamide, N2-acetyl-L-arginyl-L-lysyl-L-leucyl-L-tyrosyl-L-.alpha.-aspartyl-L-tyrosyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 7
NTE modified (modifications unspecified)

SEQ 1 RKLYDYK

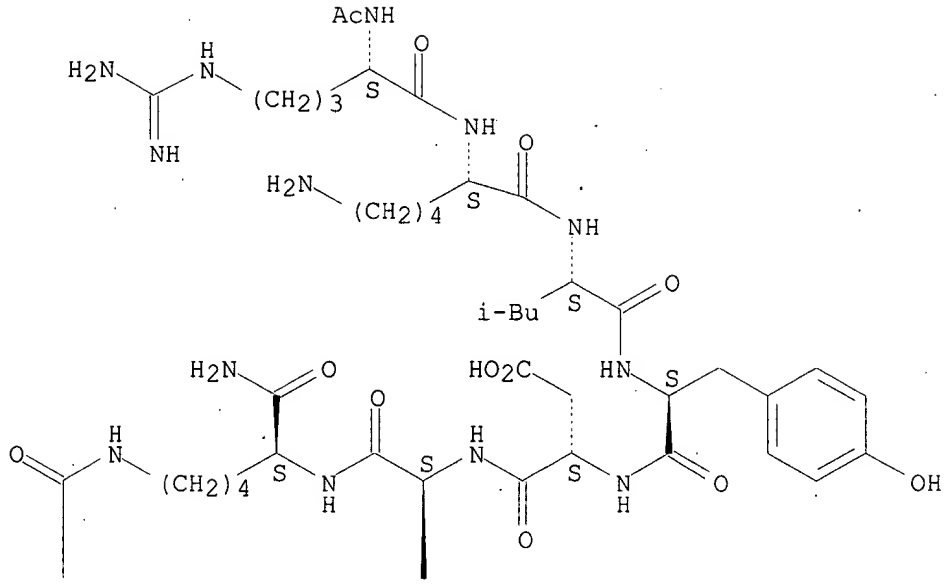
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C55 H80 N14 O15 . 2 C2 H F3 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

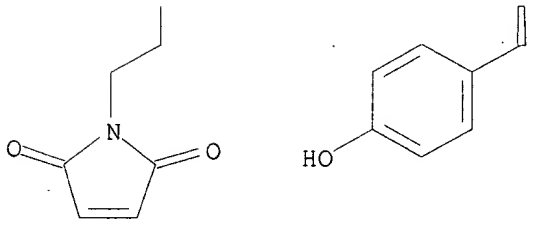
CRN 307314-70-1
CMF C55 H80 N14 O15

Absolute stereochemistry.

PAGE 1-A

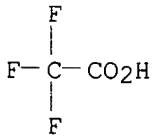


PAGE 2-A



CM 2

CRN 76-05-1
CMF C2 H F3 O2



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 17 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307314-70-1 REGISTRY
CN L-Lysinamide, N2-acetyl-L-arginyl-L-lysyl-L-leucyl-L-tyrosyl-L-.alpha.-aspartyl-L-tyrosyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-

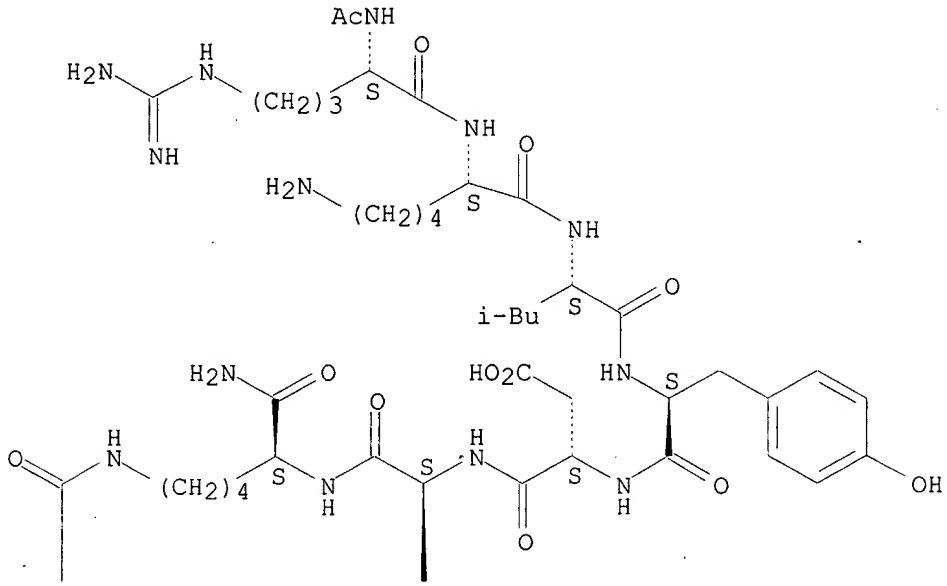
oxopropyl]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 7
NTE modified (modifications unspecified)

SEQ 1 RKLYDYK

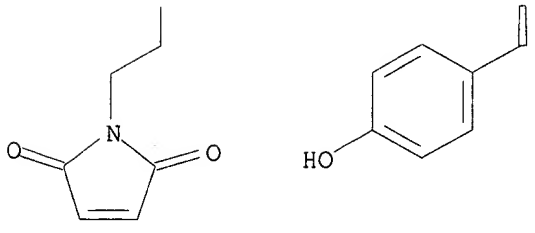
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C55 H80 N14 O15
CI COM
SR CA

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



L3 ANSWER 18 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307314-69-8 REGISTRY
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FS PROTEIN SEQUENCE; STEREOSEARCH

SQL 12
NTE modified (modifications unspecified)

SEQ 1 RNPDGDVGGP WK

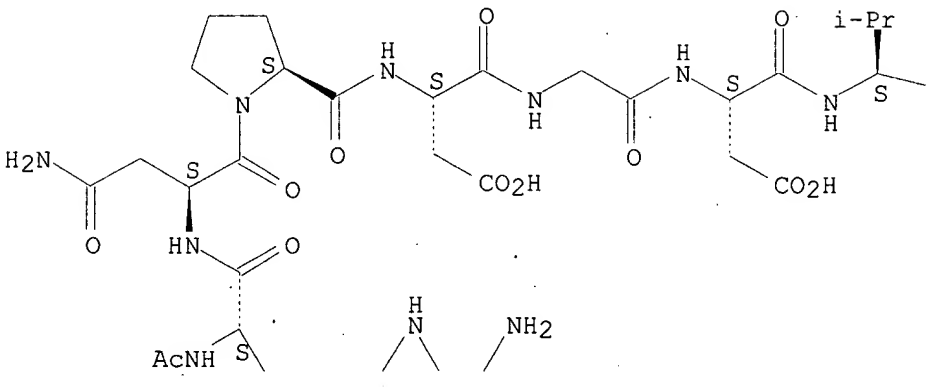
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C65 H92 N20 O21 . C2 H F3 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

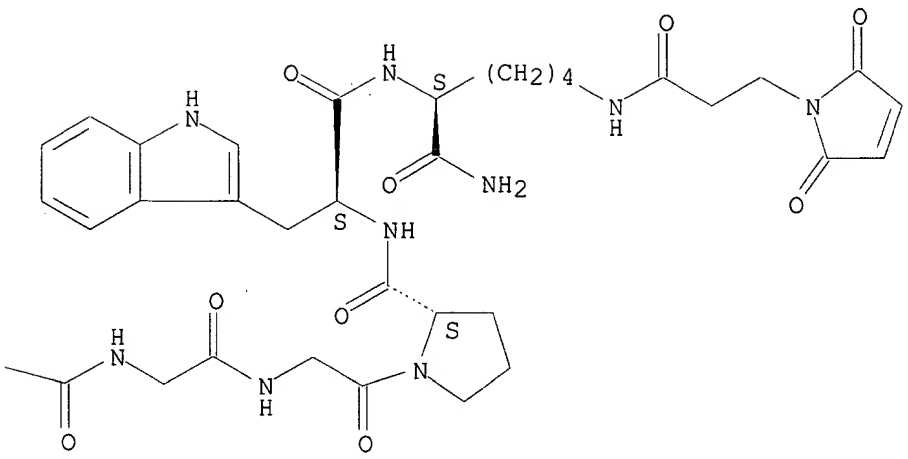
CRN 307314-68-7
CMF C65 H92 N20 O21

Absolute stereochemistry.

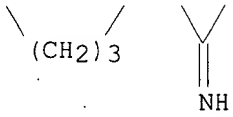
PAGE 1-A



PAGE 1-B

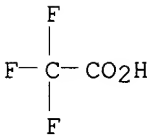


PAGE 2-A



CM 2

CRN 76-05-1
CMF C2 H F3 O2



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

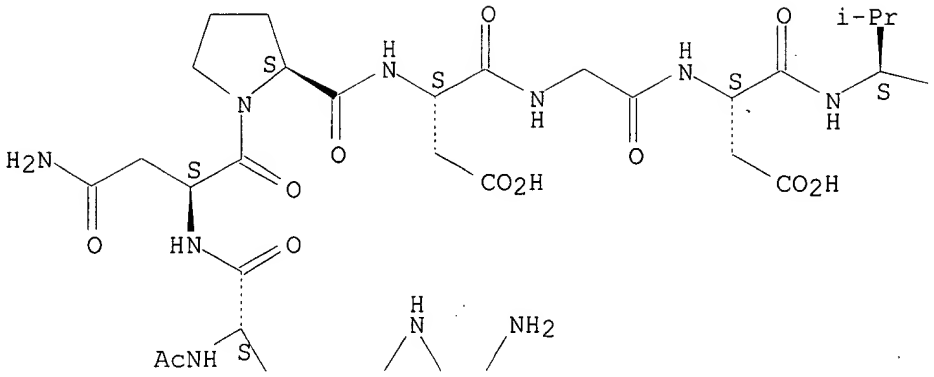
L3 ANSWER 19 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307314-68-7 REGISTRY
CN L-Lysinamide, N2-acetyl-L-arginyl-L-asparaginyl-L-prolyl-L-.alpha.-aspartylglycyl-L-.alpha.-aspartyl-L-valylglycylglycyl-L-prolyl-L-tryptophyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 12
NTE modified (modifications unspecified)

SEQ 1 RNPDGDVGGP WK

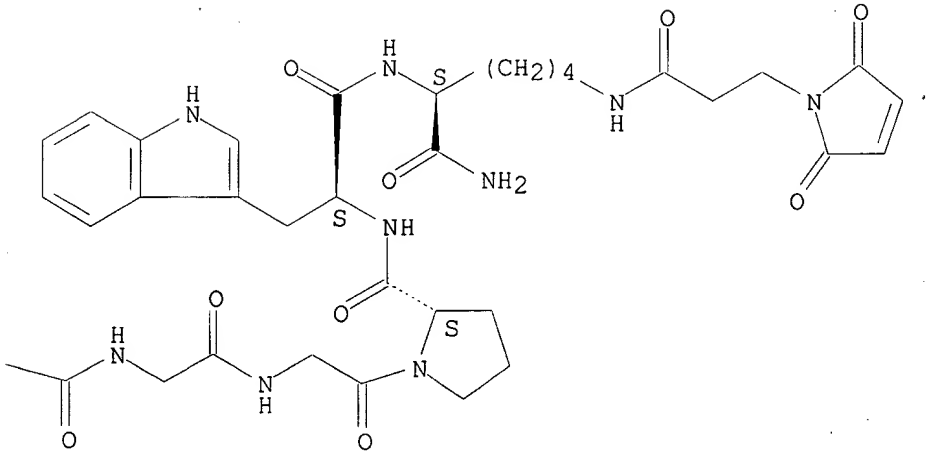
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C65 H92 N20 O21
CI COM
SR CA

Absolute stereochemistry.

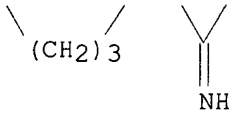
PAGE 1-A



PAGE 1-B



PAGE 2-A



L3 ANSWER 20 OF 54 REGISTRY COPYRIGHT 2003 ACS

RN 307314-67-6 REGISTRY
CN L-Lysinamide, N2-acetyl-L-arginyl-L-asparaginyl-L-prolyl-L-.alpha.-aspartylglycyl-L-.alpha.-aspartyl-L-valylglycylglycyl-L-prolyl-L-tryptophyl-L-alanyl-L-tyrosyl-L-threonyl-L-threonyl-L-asparaginyl-L-prolyl-L-arginyl-L-lysyl-L-leucyl-L-tyrosyl-L-.alpha.-aspartyl-L-tyrosyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-, tris(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 24
NTE modified (modifications unspecified)

SEQ 1 RNPDGDVGGP WAYTTNPRKL YDYK

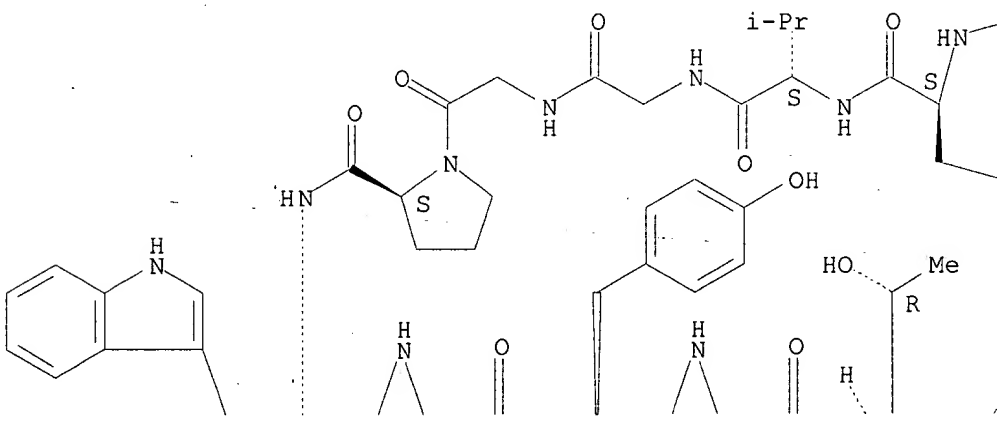
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C134 H191 N37 O41 . 3 C2 H F3 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

CRN 307314-66-5
CMF C134 H191 N37 O41

Absolute stereochemistry.

PAGE 1-A



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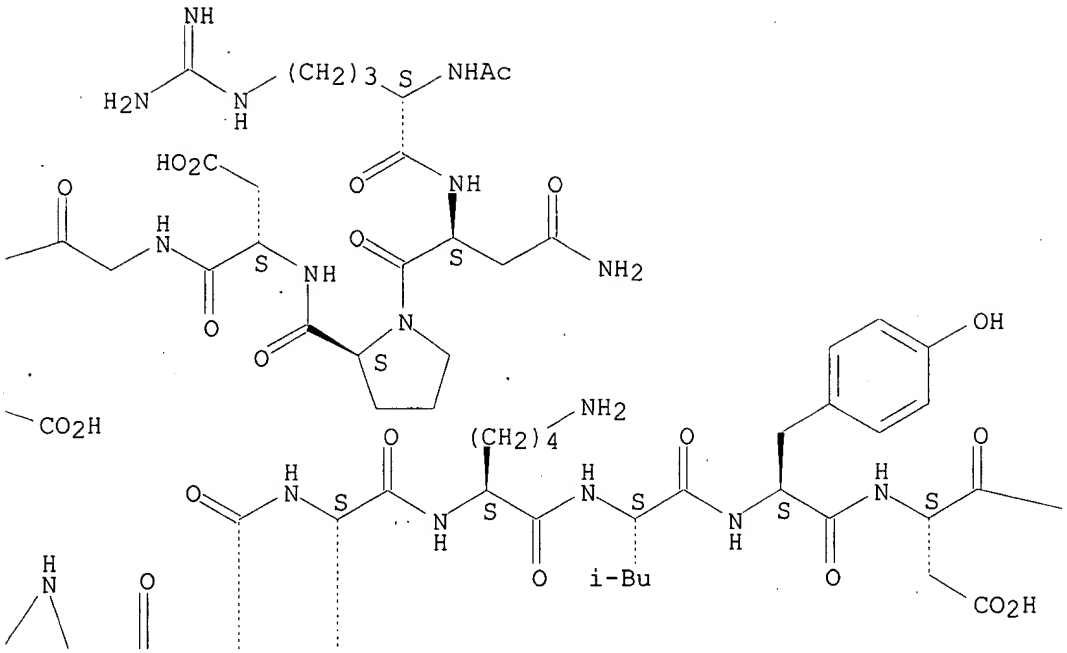

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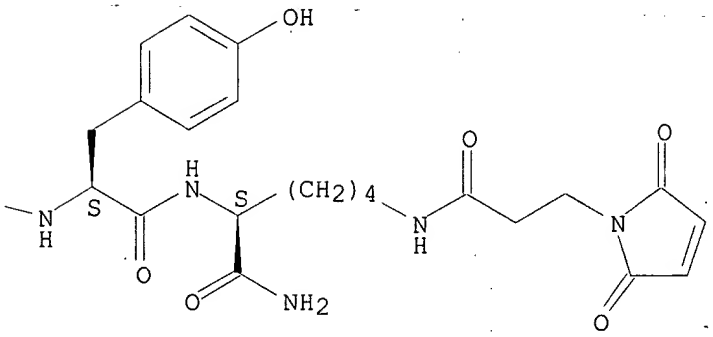
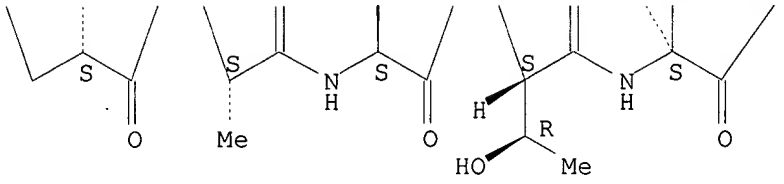


PAGE 2-A



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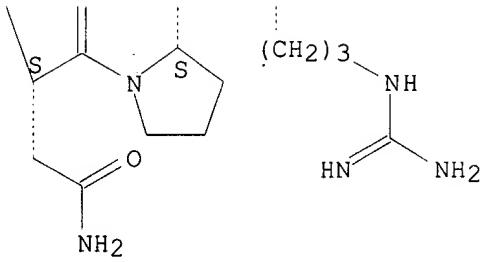
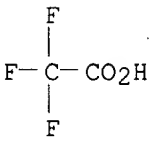


CM 2

CRN 76-05-1
CMF C2 H F3 O2



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

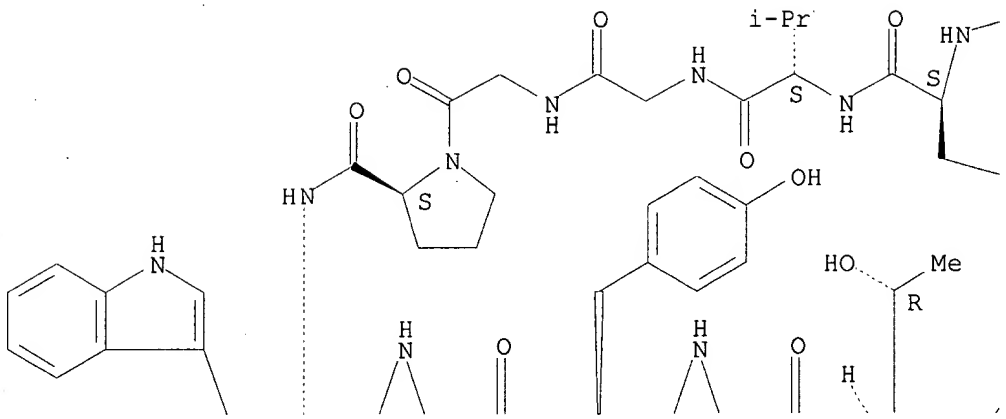
L3 ANSWER 21 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307314-66-5 REGISTRY
CN L-Lysinamide, N2-acetyl-L-arginyl-L-asparaginyl-L-prolyl-L-.alpha.-aspartylglycyl-L-.alpha.-aspartyl-L-valylglycylglycyl-L-prolyl-L-tryptophyl-L-alanyl-L-tyrosyl-L-threonyl-L-threonyl-L-asparaginyl-L-prolyl-L-arginyl-L-lysyl-L-leucyl-L-tyrosyl-L-.alpha.-aspartyl-L-tyrosyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 24
NTE modified (modifications unspecified)

SEQ 1 RNPDGDVGGP WAYTTNPRKL YDYK

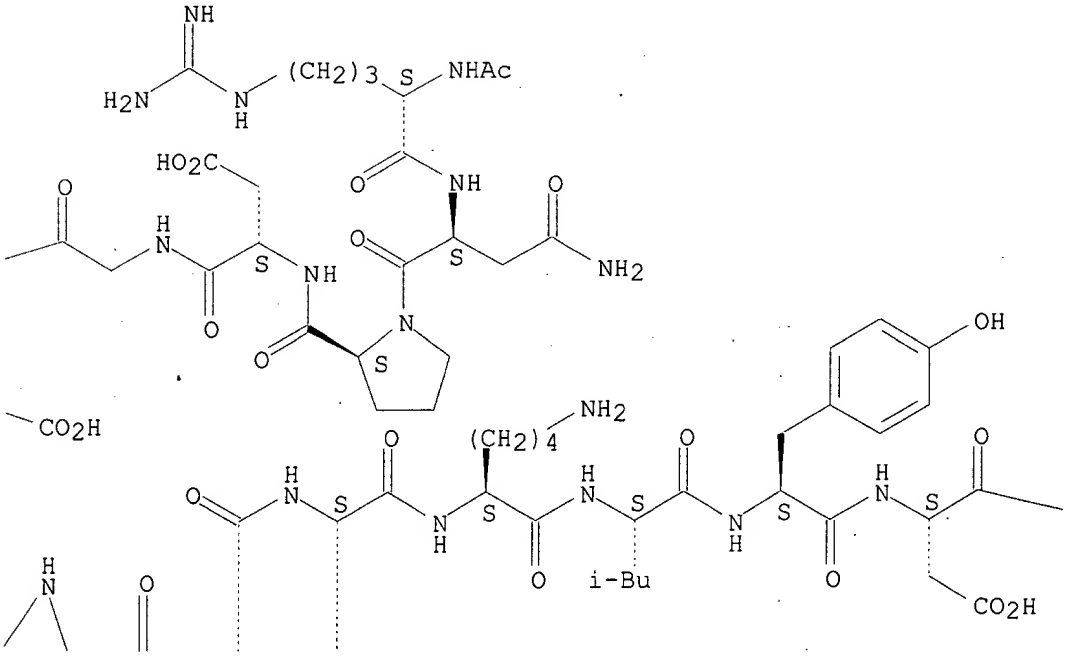
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C134 H191 N37 O41
CI COM
SR CA

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



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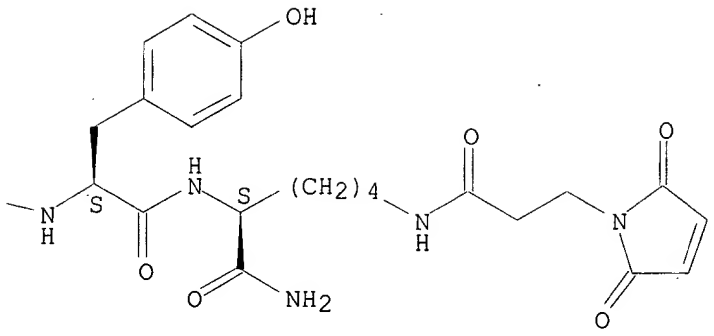

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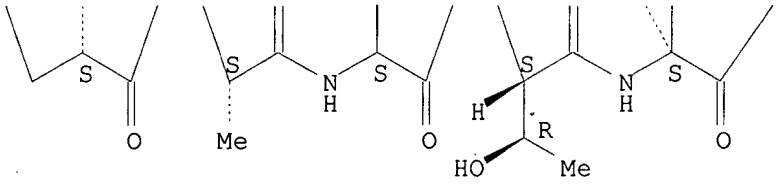
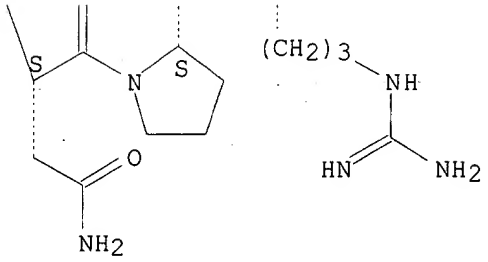


PAGE 2-B



L3 ANSWER 22 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307314-65-4 REGISTRY
CN L-Lysinamide, N-acetyl-L-tyrosyl-L-threonyl-L-threonyl-L-asparaginyl-L-prolyl-L-arginyl-L-lysyl-L-leucyl-L-tyrosyl-L-.alpha.-aspartyl-L-tyrosyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 12
NTE modified (modifications unspecified)

SEQ 1 YTTNPRKLYD YK

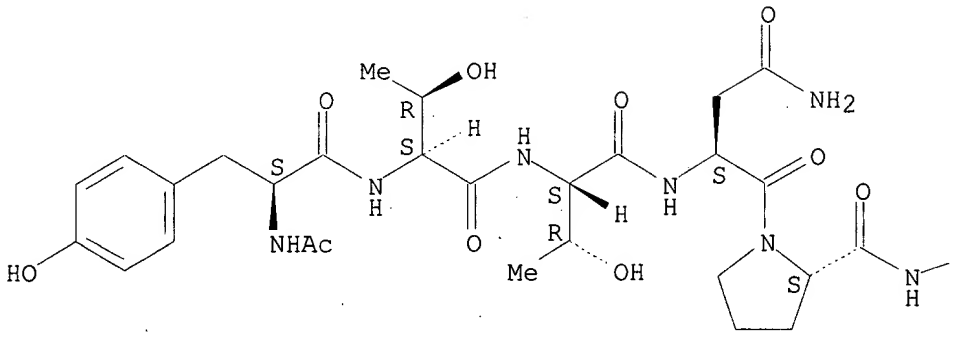
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C81 H116 N20 O24 . 2 C2 H F3 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

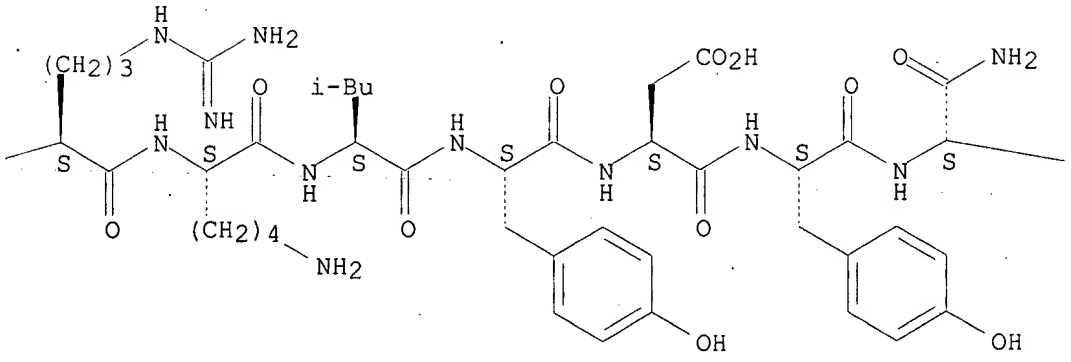
CRN 307314-64-3
CMF C81 H116 N20 O24

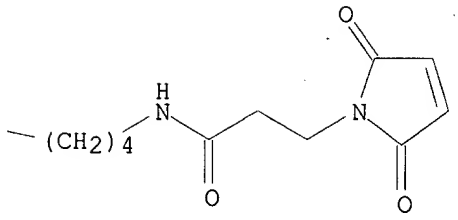
Absolute stereochemistry.

PAGE 1-A



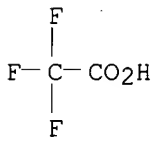
PAGE 1-B





CM 2

CRN 76-05-1
CMF C2 H F3 O2



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

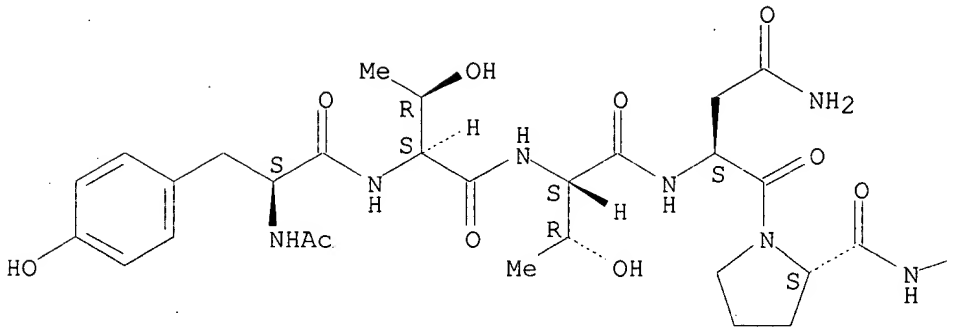
L3 ANSWER 23 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307314-64-3 REGISTRY
CN L-Lysinamide, N-acetyl-L-tyrosyl-L-threonyl-L-threonyl-L-asparaginyl-L-prolyl-L-arginyl-L-lysyl-L-leucyl-L-tyrosyl-L-.alpha.-aspartyl-L-tyrosyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 12
NTE modified (modifications unspecified)

SEQ 1 YTTNPRKLYD YK

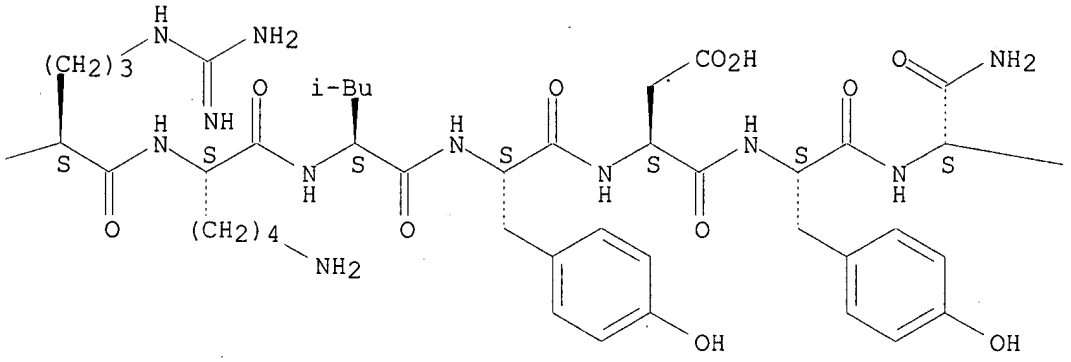
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C81 H116 N20 O24
CI COM
SR CA

Absolute stereochemistry.

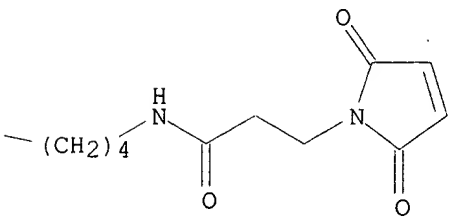
PAGE 1-A



PAGE 1-B



PAGE 1-C



L3 ANSWER 24 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307314-63-2 REGISTRY
CN L-Lysinamide, 1-acetyl-L-prolyl-L-arginyl-L-lysyl-L-leucyl-L-tyrosyl-L-.alpha.-aspartyl-L-tyrosyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-

oxopropyl]-, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 8
NTE modified (modifications unspecified)

SEQ 1 PRKLYDYK

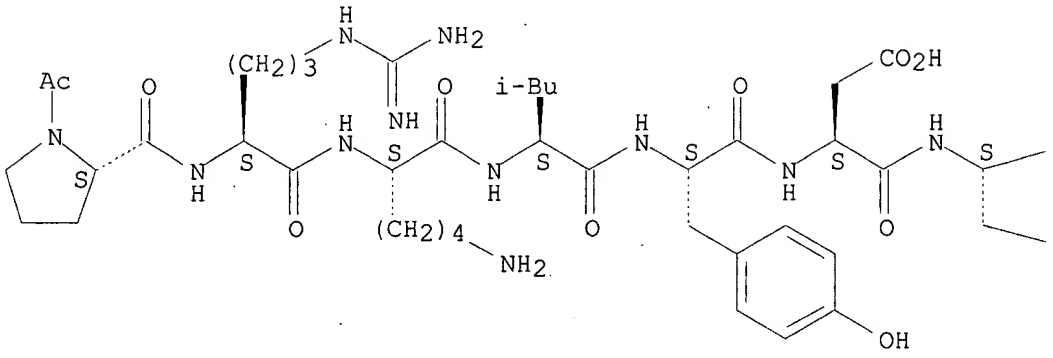
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C60 H87 N15 O16 . 2 C2 H F3 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

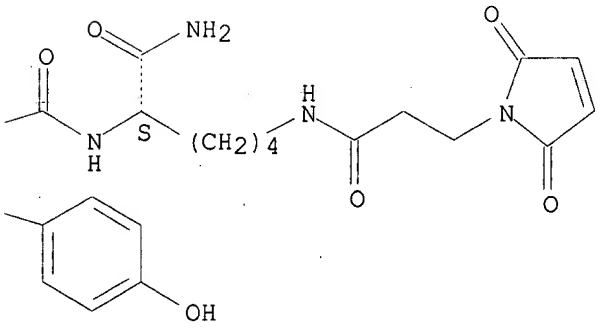
CRN 307314-62-1
CMF C60 H87 N15 O16

Absolute stereochemistry.

PAGE 1-A

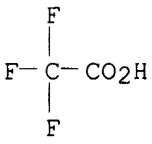


PAGE 1-B



CM 2

CRN 76-05-1
CMF C2 H F3 O2



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 25 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307314-62-1 REGISTRY
CN L-Lysinamide, 1-acetyl-L-prolyl-L-arginyl-L-lysyl-L-leucyl-L-tyrosyl-L-.alpha.-aspartyl-L-tyrosyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 4: PN: WO0117568 SEQID: 12 claimed protein
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 8
NTE modified (modifications unspecified)

PATENT ANNOTATIONS (PNTE):

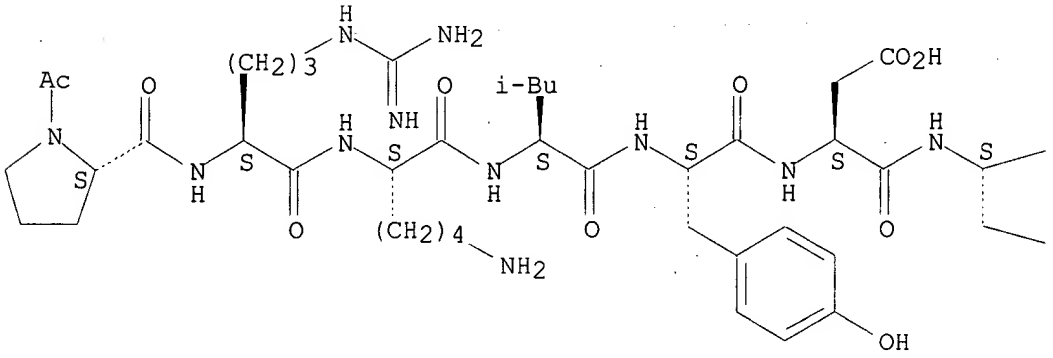
Sequence Source	Patent Reference
Not Given	WO2001017568 claimed SEQID 12

SEQ 1 PRKLYDYK

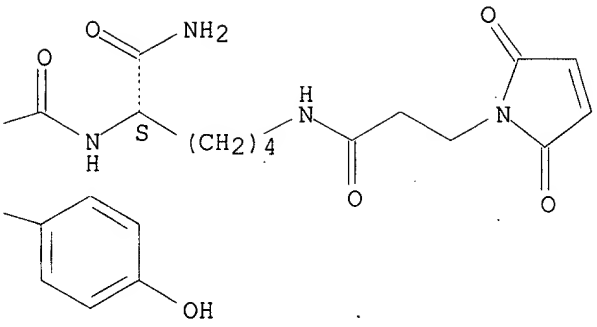
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C60 H87 N15 O16
CI COM
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 26 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307314-61-0 REGISTRY
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FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 28
NTE modified (modifications unspecified)

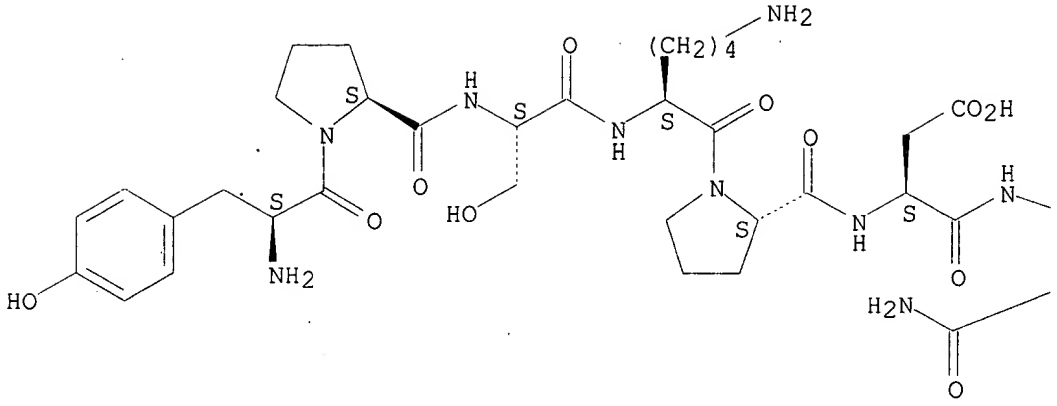
SEQ 1 HSDGTFTSEL SRLREGARLE RLLQGLVK
MF C143 H236 N46 O45
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER
1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 27 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 307314-59-6 REGISTRY
CN L-Lysinamide, L-tyrosyl-L-prolyl-L-seryl-L-lysyl-L-prolyl-L-.alpha.-aspartyl-L-asparaginyl-L-prolylglycyl-L-.alpha.-glutamyl-L-.alpha.-aspartyl-L-alanyl-L-prolyl-L-alanyl-L-.alpha.-glutamyl-L-.alpha.-aspartyl-L-methionyl-L-alanyl-L-arginyl-L-tyrosyl-L-tyrosyl-L-seryl-L-alanyl-L-leucyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 25
NTE modified (modifications unspecified)

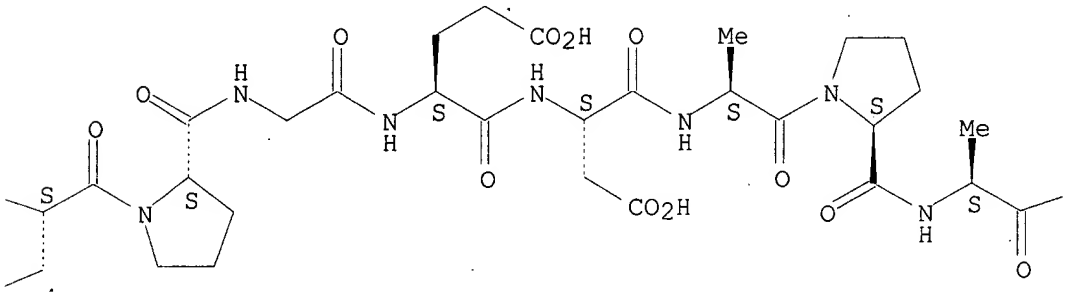
SEQ 1 YPSKPDNPGE DAPAEDMARY YSALK
MF C129 H187 N33 O44 S
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

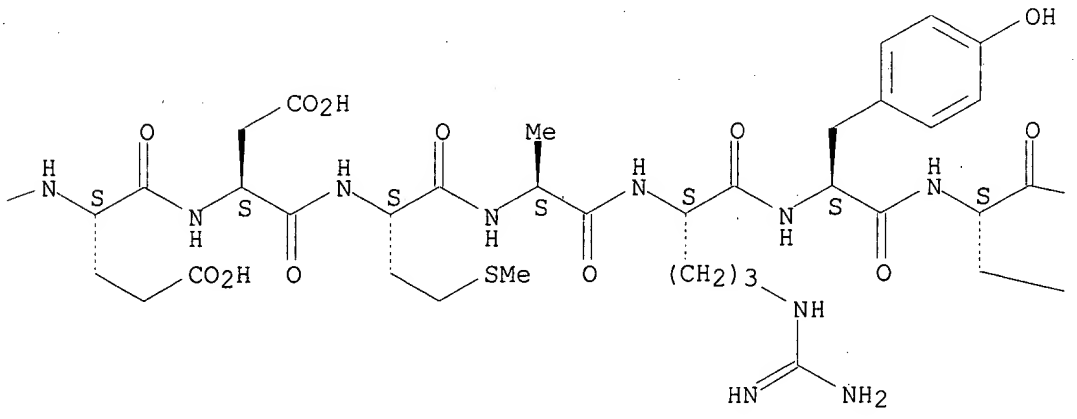
PAGE 1-A



PAGE 1-B



PAGE 1-C



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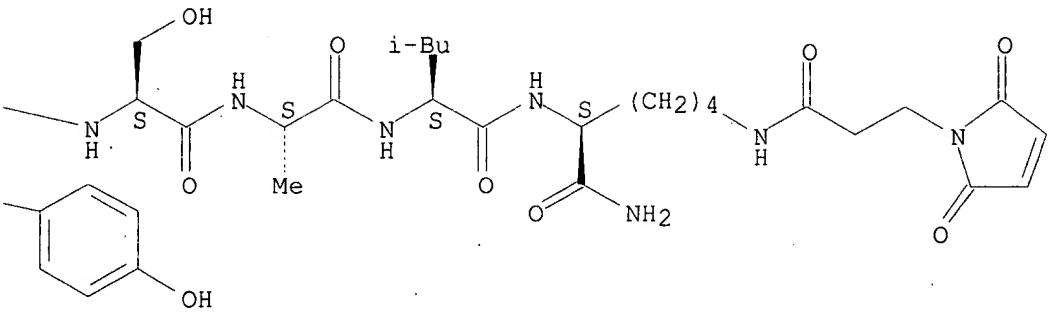


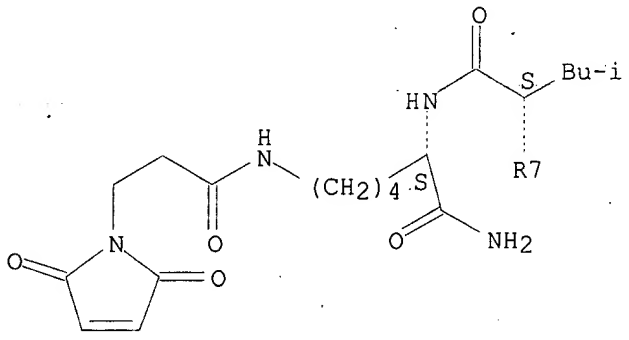
1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 28 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 303013-27-6 REGISTRY
CN L-Lysinamide, N2-acetyl-L-asparaginyl-L-leucyl-L-.alpha.-glutamyl-L-.alpha.-glutamyl-L-leucyl-L-leucyl-L-lysyl-L-lysyl-L-leucyl-L-glutaminyl-L-.alpha.-glutamyl-L-alanyl-L-leucyl-L-.alpha.-glutamyl-L-lysyl-L-alanyl-L-glutaminyl-L-lysyl-L-leucyl-L-leucyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 21
NTE modified (modifications unspecified)

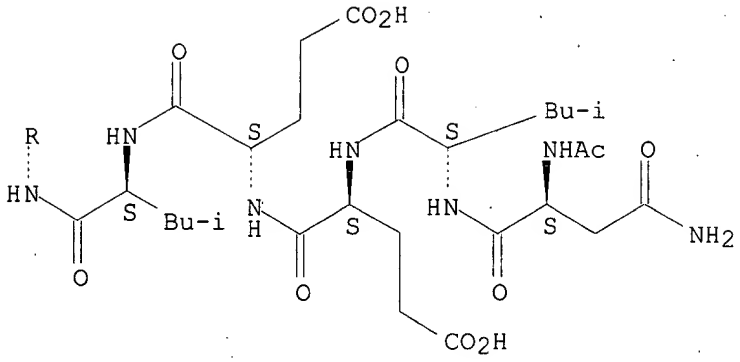
SEQ 1 NLEELLKKLQ EALEKAQKLL K
MF C121 H207 N31 O36
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

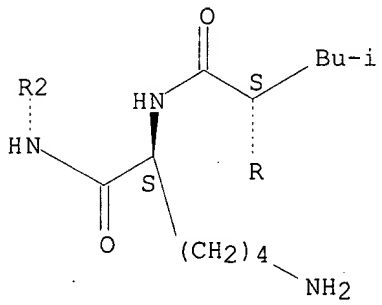
PAGE 1-A

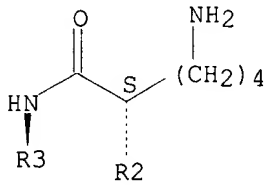


PAGE 2-A

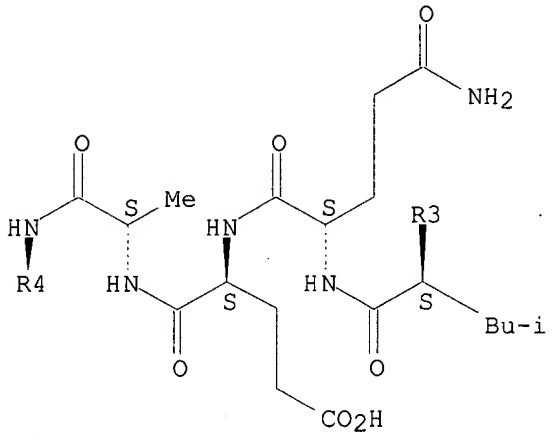


PAGE 3-A

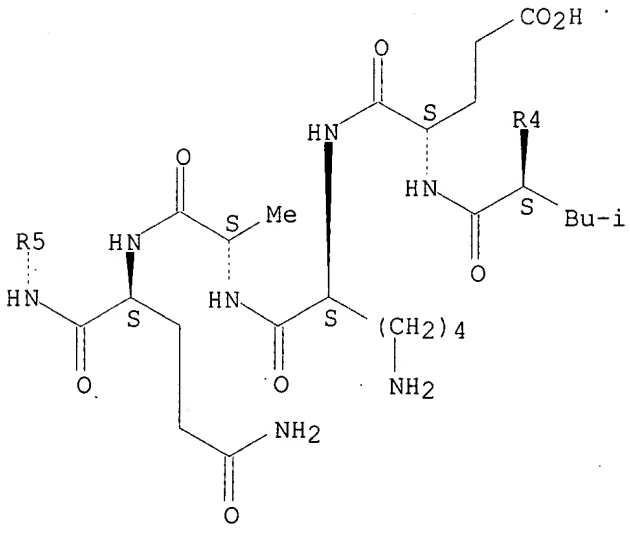




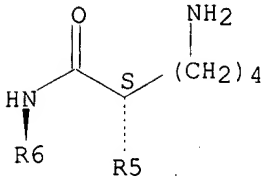
PAGE 4-A

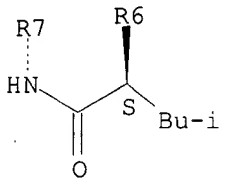


PAGE 5-A



PAGE 6-A





1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

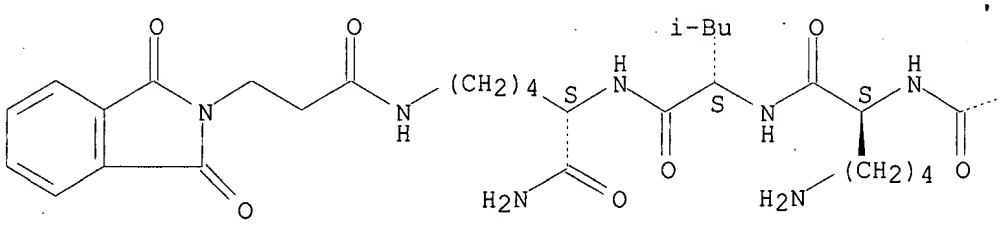
L3 ANSWER 29 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 287726-97-0 REGISTRY
CN L-Lysinamide, L-tyrosylglycylglycyl-L-phenylalanyl-L-leucyl-L-arginyl-L-arginyl-L-isoleucyl-L-arginyl-L-prolyl-L-lysyl-L-leucyl-N6-[3-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-1-oxopropyl]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 13
NTE modified (modifications unspecified)

SEQ 1 YGGFLRRIRP KLK

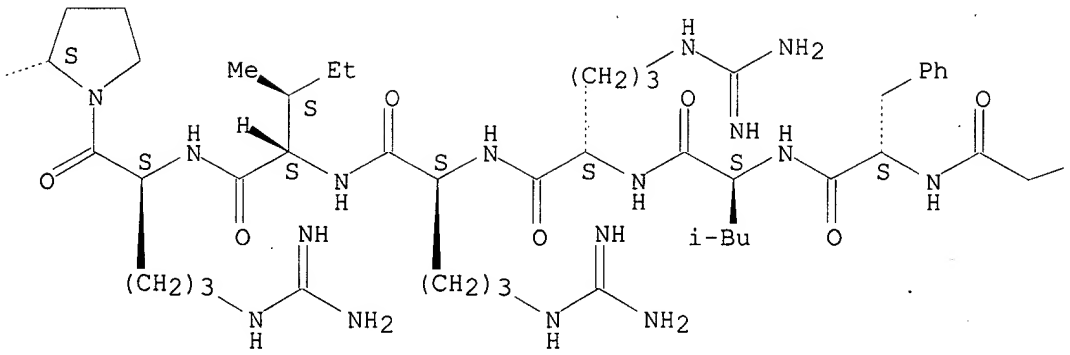
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C86 H134 N26 O17
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

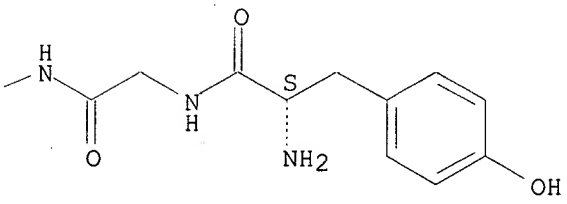
PAGE 1-A



PAGE 1-B



PAGE 1-C



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

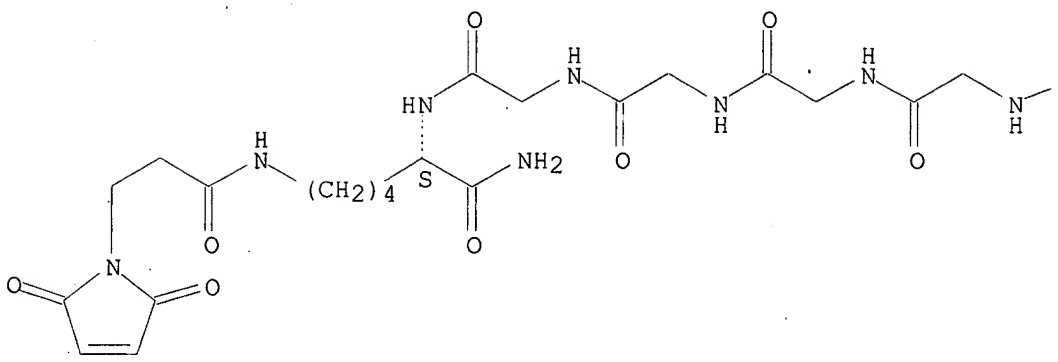
L3 ANSWER 30 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 274259-01-7 REGISTRY
CN L-Lysinamide, N-[1-oxo-4-(triethylammonio)butyl]glycylglycylglycylglycylgl
ycyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-, bromide
(9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 6
NTE modified (modifications unspecified)

SEQ 1 GGGGGK

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C33 H55 N10 O10 . Br
SR CA
LC STN Files: CA, CAPLUS
CRN (475558-09-9)

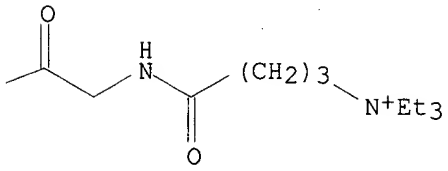
Absolute stereochemistry.

PAGE 1-A



● Br^-

PAGE 1-B



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

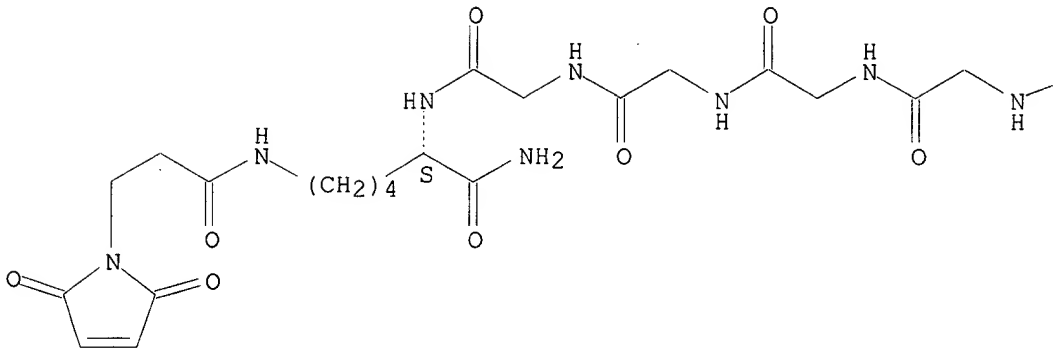
L3 ANSWER 31 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 274259-00-6 REGISTRY
CN L-Lysinamide, N-[1-oxo-4-(triethylammonio)butyl]glycylglycylglycylglycyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-, bromide (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 5
NTE modified (modifications unspecified)

SEQ 1 GGGGK

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF . C31 H52 N9 O9 . Br
SR CA
LC STN Files: CA, CAPLUS

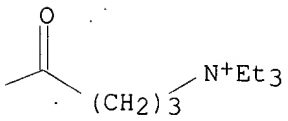
Absolute stereochemistry.

PAGE 1-A



● Br^-

PAGE 1-B



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

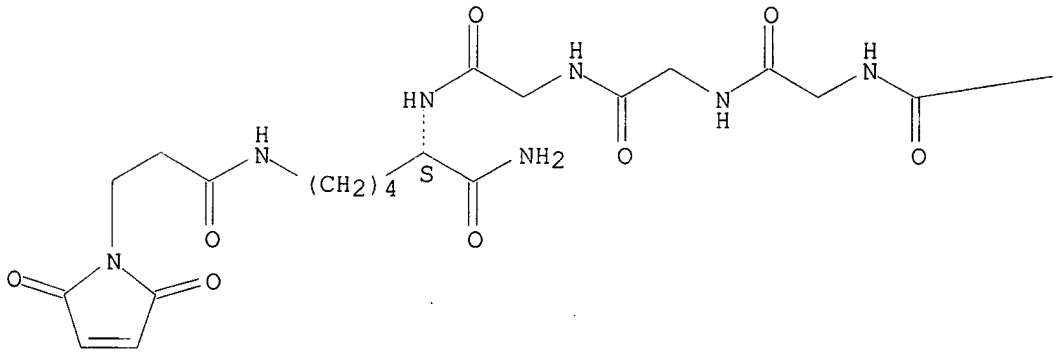
L3 ANSWER 32 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 274258-99-0 REGISTRY
CN L-Lysinamide, N-[1-oxo-4-(triethylammonio)butyl]glycylglycylglycyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-, bromide (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 4
NTE modified (modifications unspecified)

SEQ 1 GGGK

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C29 H49 N8 O8 . Br
SR CA
LC STN Files: CA, CAPLUS
CRN (475558-10-2)

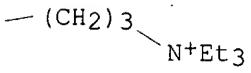
Absolute stereochemistry.

PAGE 1-A



● Br^-

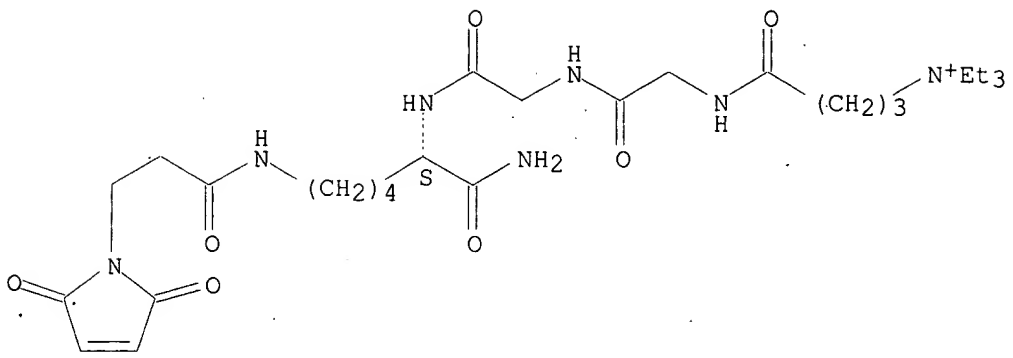
PAGE 1-B



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 33 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 274258-97-8 REGISTRY
CN L-Lysinamide, N-[1-oxo-4-(triethylammonio)butyl]glycylglycyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-, bromide (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C27 H46 N7 O7 . Br
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

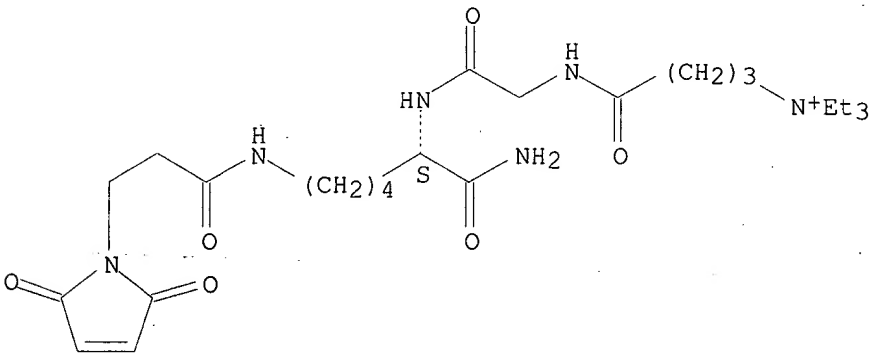


● Br^-

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 34 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 274258-95-6 REGISTRY
CN L-Lysinamide, N-[1-oxo-4-(triethylammonio)butyl]glycyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-, bromide (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C25 H43 N6 O6 . Br
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

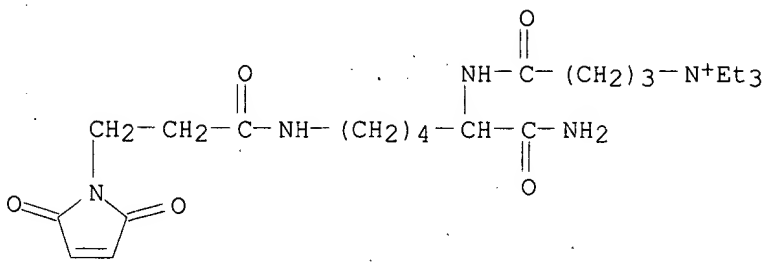


● Br^-

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 35 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 274258-94-5 REGISTRY
CN 1-Butanaminium, 4-[[1-(aminocarbonyl)-5-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]pentyl]amino]-N,N,N-triethyl-4-oxo-, bromide (9CI) (CA INDEX NAME)
MF C23 H40 N5 O5 . Br
SR CA

LC STN Files: CA, CAPLUS



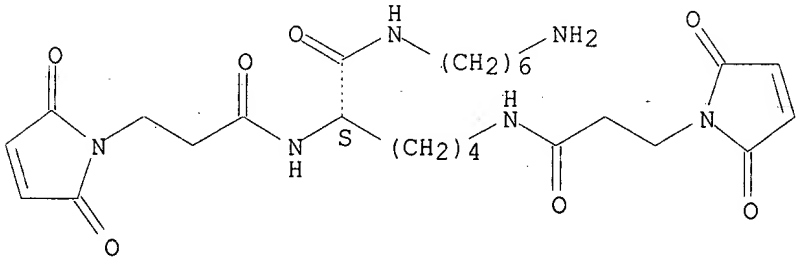
1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 36 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 252335-97-0 REGISTRY
CN 1H-Pyrrole-1-propanamide, N,N'-[(1S)-1-[[(6-aminohexyl)amino]carbonyl]-1,5-pentanediyl]bis[2,5-dihydro-2,5-dioxo-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C26 H38 N6 O7 . C2 H F3 O2
SR CA
LC STN Files: CA, CAPLUS

CM 1

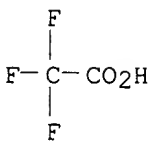
CRN 252335-96-9
CMF C26 H38 N6 O7

Absolute stereochemistry.



CM 2

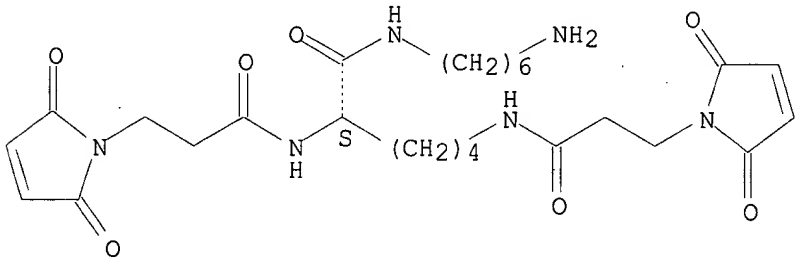
CRN 76-05-1
CMF C2 H F3 O2



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 37 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 252335-96-9 REGISTRY
CN 1H-Pyrrole-1-propanamide, N,N'-[(1S)-1-[[(6-aminohexyl)amino]carbonyl]-1,5-pentanediyl]bis[2,5-dihydro-2,5-dioxo- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C26 H38 N6 O7
CI COM
SR CA

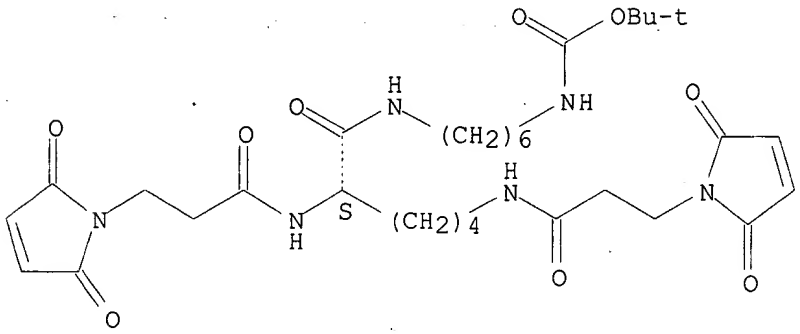
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L3 ANSWER 38 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 252335-95-8 REGISTRY
CN Carbamic acid, [6-[[(2S)-2,6-bis[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]-1-oxohexyl]amino]hexyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C31 H46 N6 O9
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 39 OF 54 REGISTRY COPYRIGHT 2003 ACS

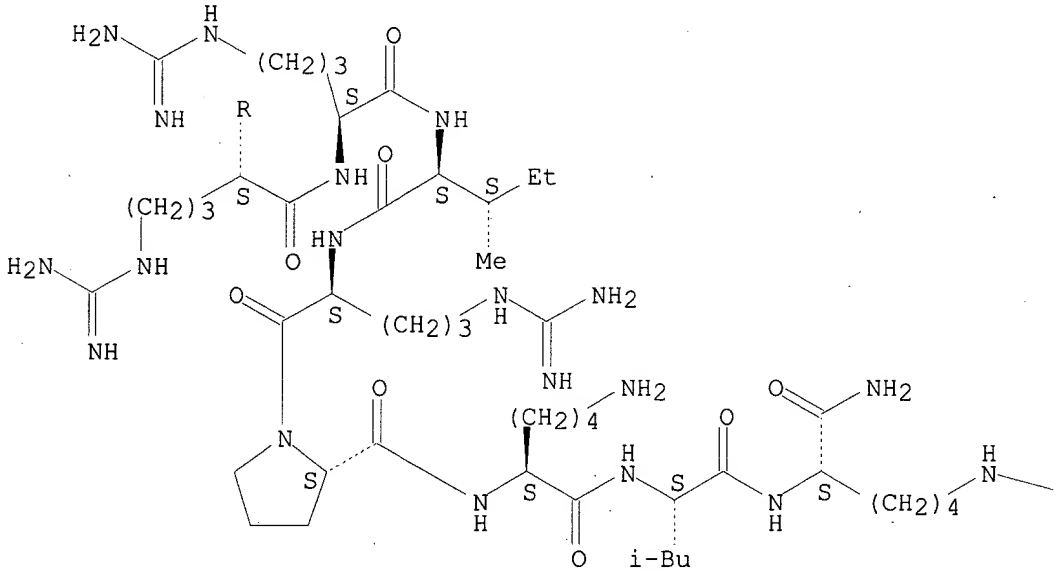
RN 224785-62-0 REGISTRY
CN 2-12-Dynorphin A (swine), 9a-endo-L-arginine-12-[N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysinamide]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 12
NTE modified (modifications unspecified)

SEQ 1 GGFLRRIRRP KL

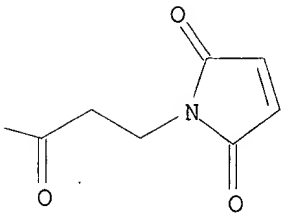
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C73 H123 N25 O15
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

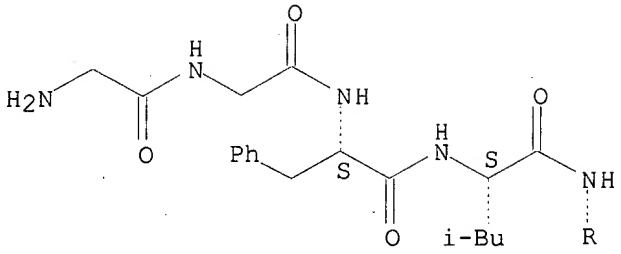
PAGE 1-A



PAGE 1-B



PAGE 2-A



2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 40 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 224785-55-1 REGISTRY
CN 1-12-Dynorphin A (swine), 9a-endo-L-arginine-12-[N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysinamide]-, pentakis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 13
NTE modified (modifications unspecified)

SEQ 1 YGGFLRRIRR PKL

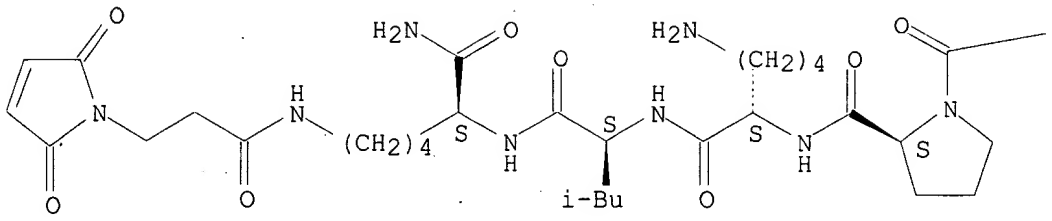
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C82 H132 N26 O17 . 5 C2 H F3 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

CM 1

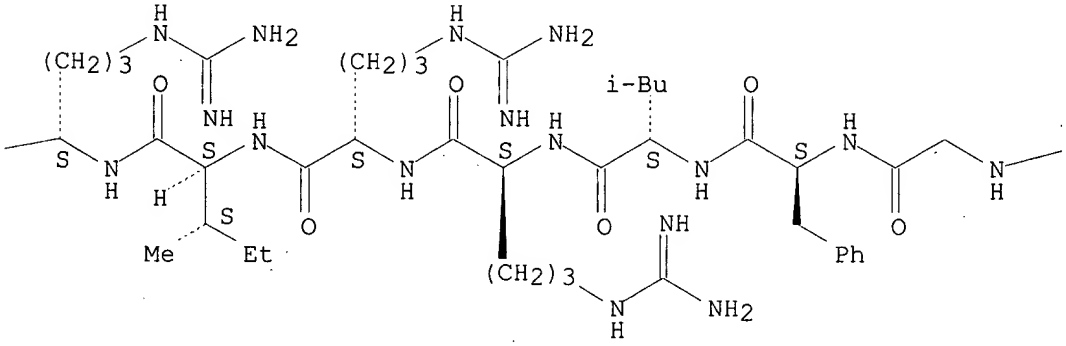
CRN 224785-54-0
CMF C82 H132 N26 O17

Absolute stereochemistry.

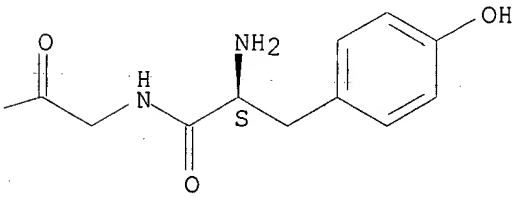
PAGE 1-A



PAGE 1-B

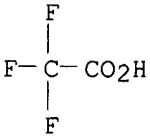


PAGE 1-C



CM 2

CRN 76-05-1
CMF C2 H F3 O2



2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

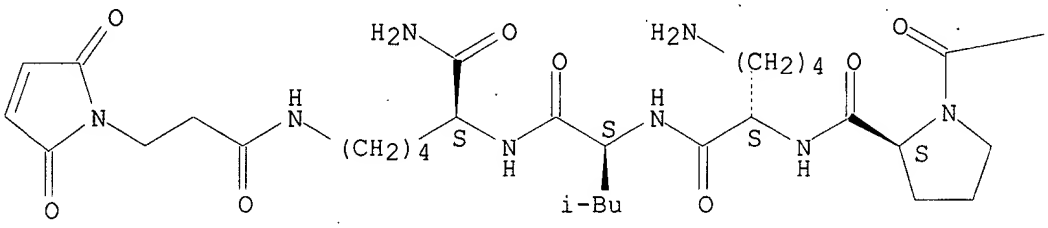
L3 ANSWER 41 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 224785-54-0 REGISTRY
CN 1-12-Dynorphin A (swine), 9a-endo-L-arginine-12-[N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysinamide]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 13
NTE modified (modifications unspecified)

SEQ 1 YGGFLRRIRR PKL

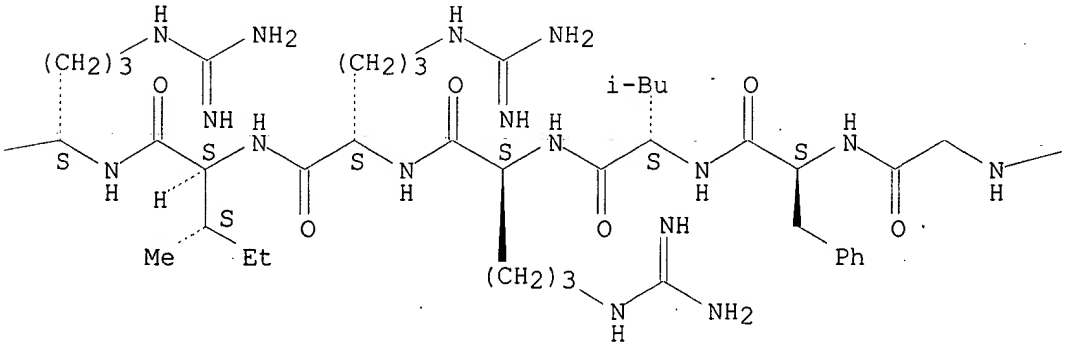
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C82 H132 N26 O17
CI COM
SR CA

Absolute stereochemistry.

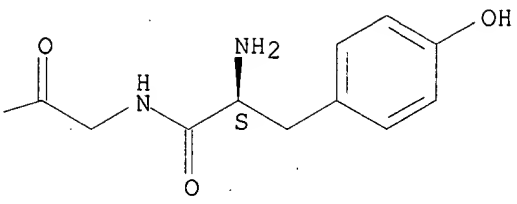
PAGE 1-A



PAGE 1-B



PAGE 1-C



L3 ANSWER 42 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 216884-15-0 REGISTRY
CN L-Lysinamide, N2-acetyl-L-asparaginyl-L-leucyl-L-.alpha.-glutamyl-L-.alpha.-glutamyl-L-phenylalanyl-L-leucyl-L-lysyl-L-lysyl-L-phenylalanyl-L-glutaminyl-L-.alpha.-glutamyl-L-alanyl-L-leucyl-L-.alpha.-glutamyl-L-lysyl-L-alanyl-L-glutaminyl-L-lysyl-L-leucyl-L-leucyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 22,21,1
NTE multichain
modified (modifications unspecified)

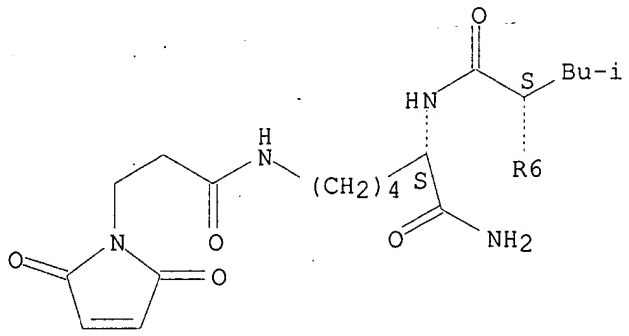
type	------ location ------		description
bridge	Lys-21	- Bal-1'	amide bridge
uncommon	Bal-1'	-	-

SEQ 1 NLEEFLKKFQ EALEKAQKLL K

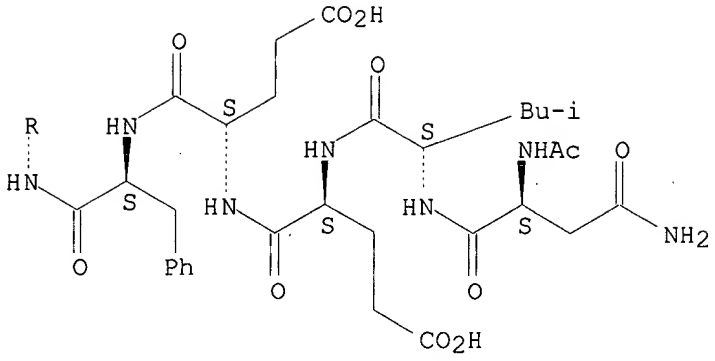
SEQ 1 X
MF C127 H203 N31 O36
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

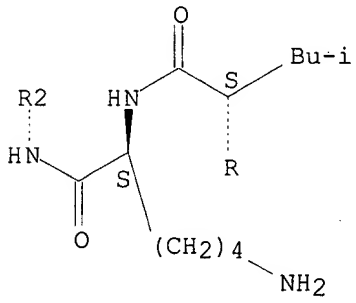
PAGE 1-A



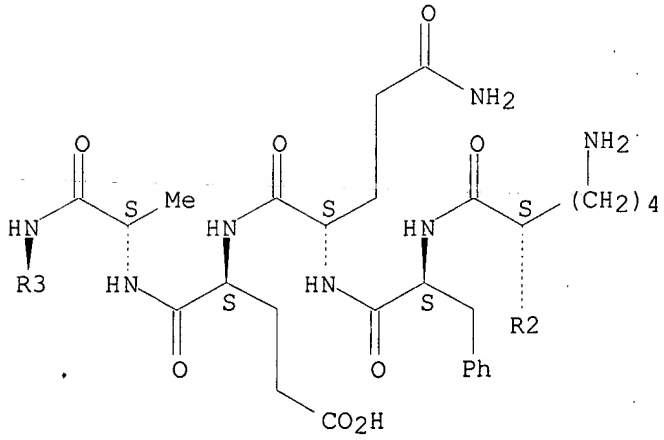
PAGE 2-A



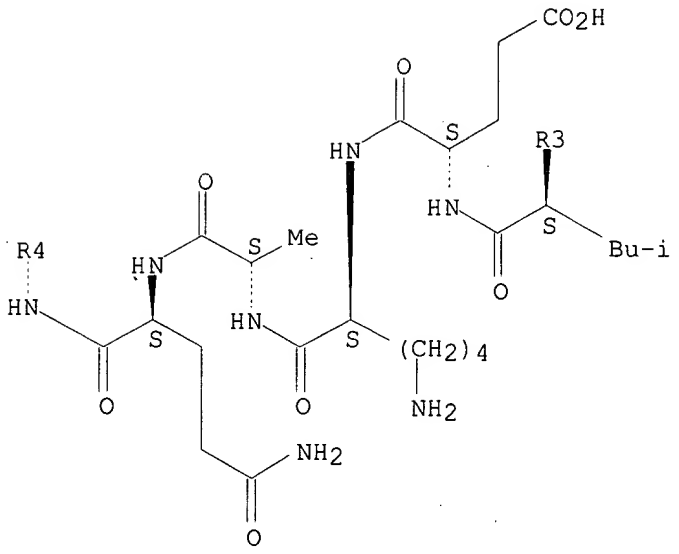
PAGE 3-A



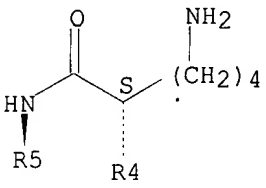
PAGE 4-A

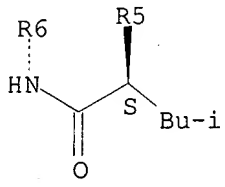


PAGE 5-A



PAGE 6-A





2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 43 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 182250-65-3 REGISTRY
CN L-Threonine, N-[N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-N2-[N-[N-[N-[N2-[N-[N-(N-L-phenylalanyl-L-.alpha.-glutamyl)-L-methionyl]-L-alanyl]-L-lysyl]-L-isoleucyl]-L-.alpha.-aspartyl]-L-valyl]-L-lysyl]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 10
NTE modified (modifications unspecified)

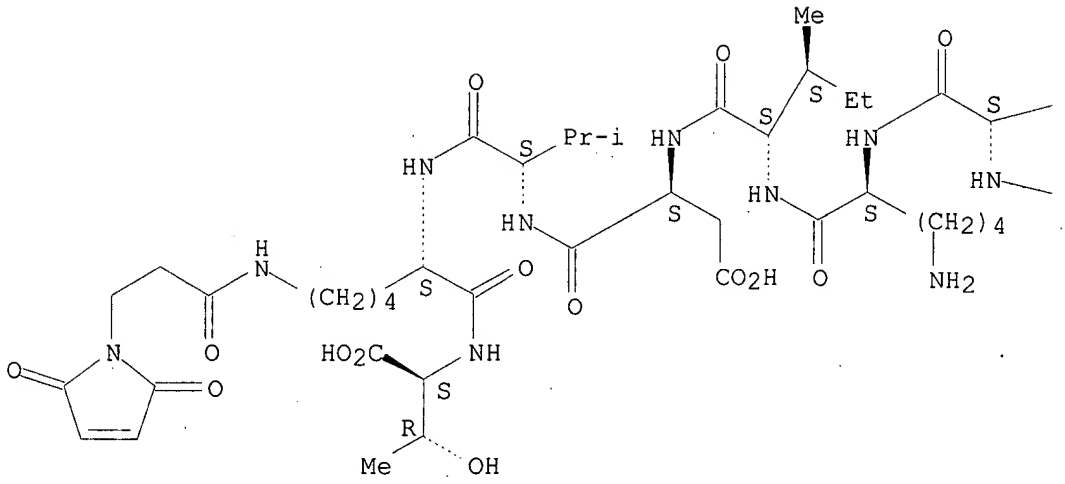
SEQ 1 FEMAKIDVKT

RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C60 H93 N13 O19 S

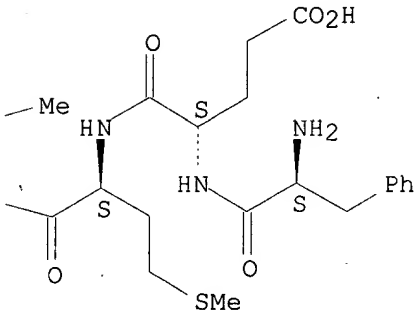
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

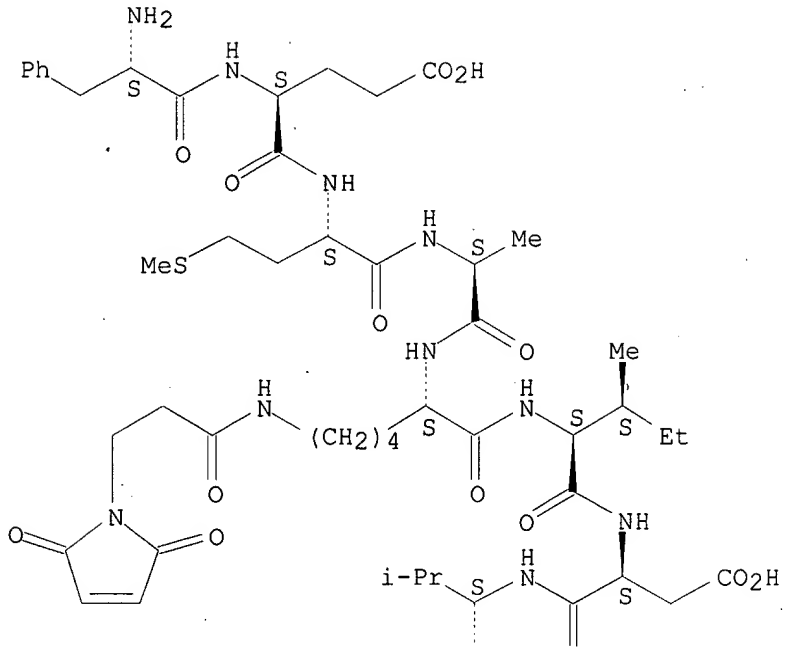
L3 ANSWER 44 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 182250-64-2 REGISTRY
CN L-Threonine, N-[N2-[N-[N-[N-[N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-N2-[N-[N-(N-L-phenylalanyl-L-.alpha.-glutamyl)-L-methionyl]-L-alanyl]-L-lysyl]-L-isoleucyl]-L-.alpha.-aspartyl]-L-valyl]-L-lysyl]- (9CI) (CA INDEX NAME)
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 10
NTE modified (modifications unspecified)

SEQ 1 FEMAKIDVKT

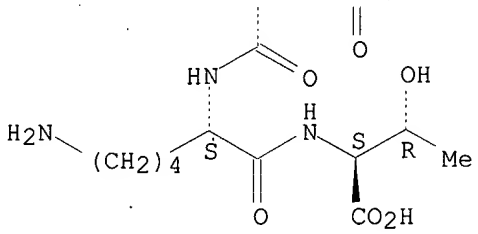
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C60 H93 N13 O19 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 2-A



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 45 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 182250-63-1 REGISTRY
CN Luteinizing hormone-releasing factor (swine), 6-[N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysine]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Luteinizing hormone-releasing factor (pig), 6-[N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysine]-
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 10
NTE modified (modifications unspecified)

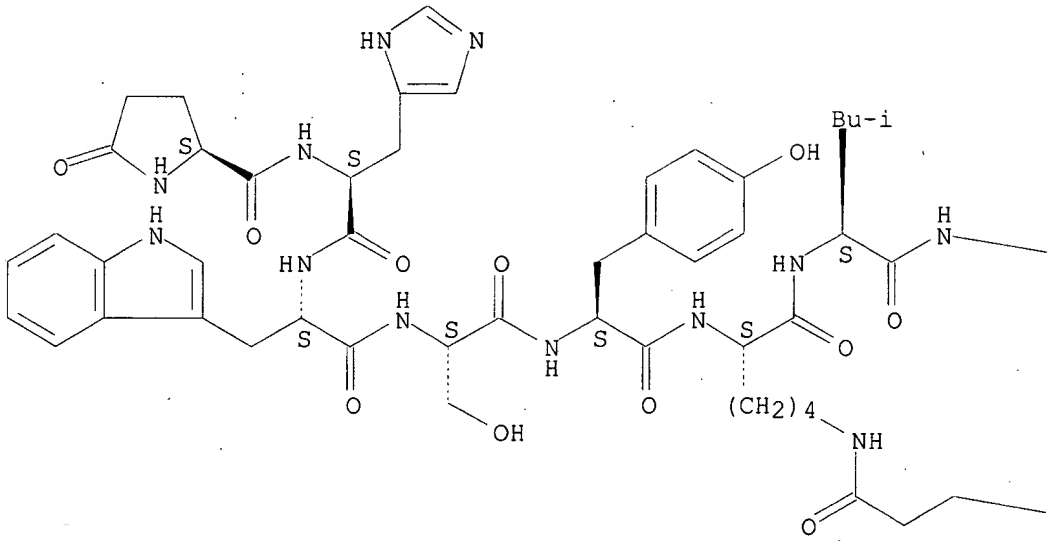
type	------ location ------		description
uncommon	Glp-1	-	-

SEQ 1 XHWSYKLRPG

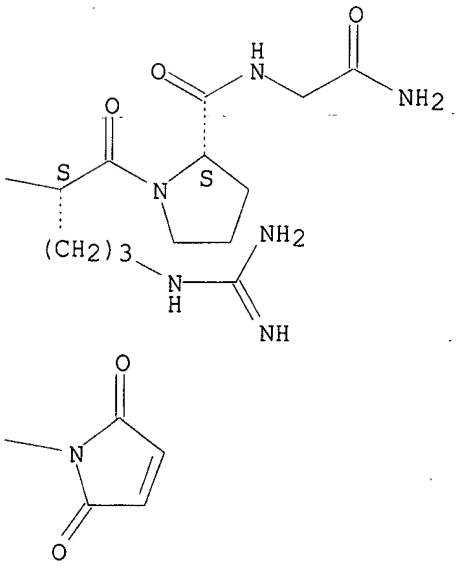
RELATED SEQUENCES AVAILABLE WITH SEQLINK
MF C66 H89 N19 O16
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A

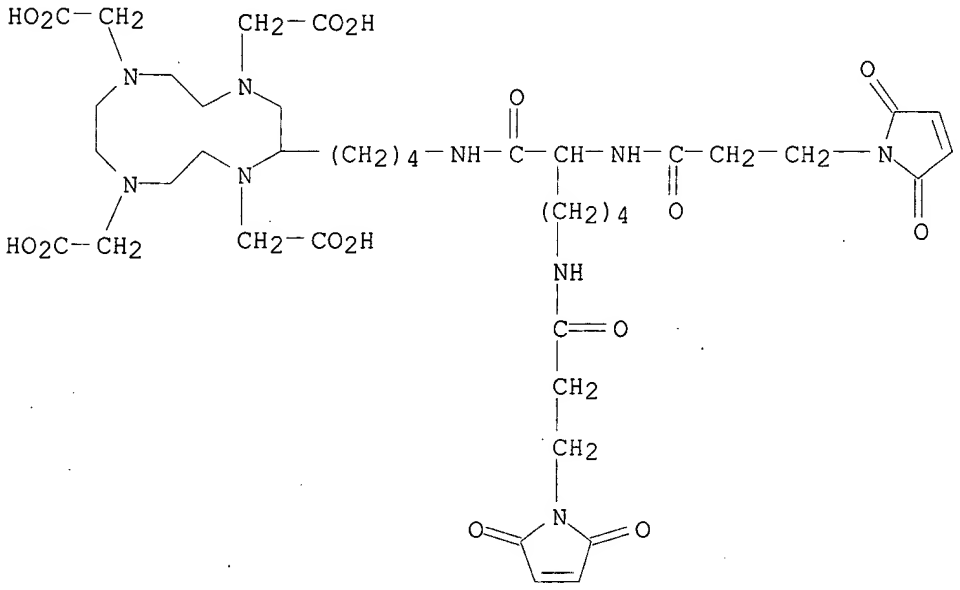


PAGE 1-B



1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 46 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 160176-67-0 REGISTRY
CN 1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetraacetic acid, 2-[4-[[2,6-bis[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]amino]-1-oxohexyl]amino]butyl]- (9CI) (CA INDEX NAME)
MF C40 H59 N9 O15
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 47 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 150954-12-4 REGISTRY
CN Luteinizing hormone-releasing factor (swine), 6-[N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-D-lysine]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Luteinizing hormone-releasing factor (pig), 6-[N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-D-lysine]-
FS PROTEIN SEQUENCE; STEREOSEARCH
SQL 11,10,1
NTE multichain
modified (modifications unspecified)

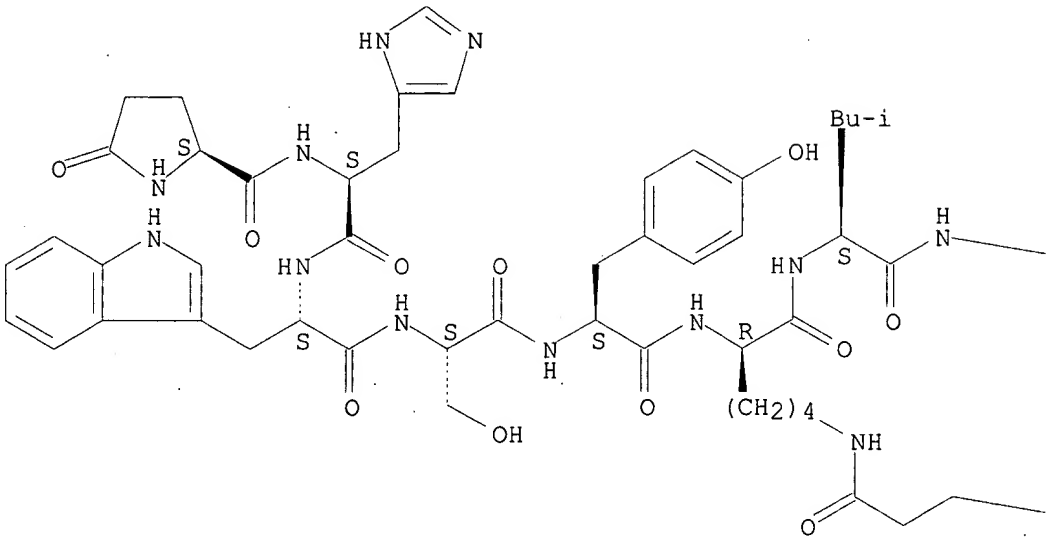
type	------ location ------	description
bridge	Lys-6 - Bal-1'	amide bridge
uncommon	Glp-1 -	-
uncommon	Bal-1' -	-
stereo	Lys-6 -	D

SEQ 1 XHWSYKLRPG

SEQ 1 X
DR 163725-26-6
MF C66 H89 N19 O16
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



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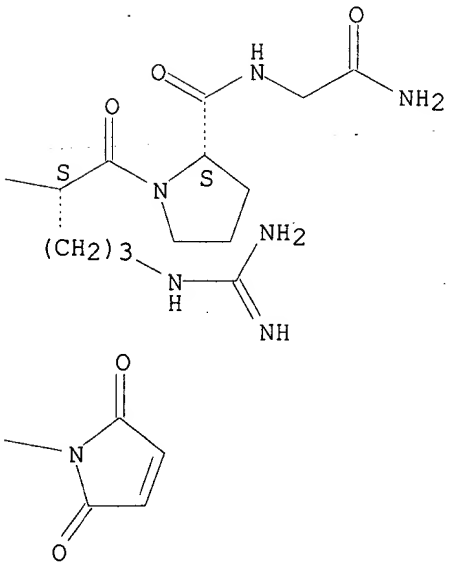


4 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

4 REFERENCES IN FILE CAPLUS (1957 TO DATE)

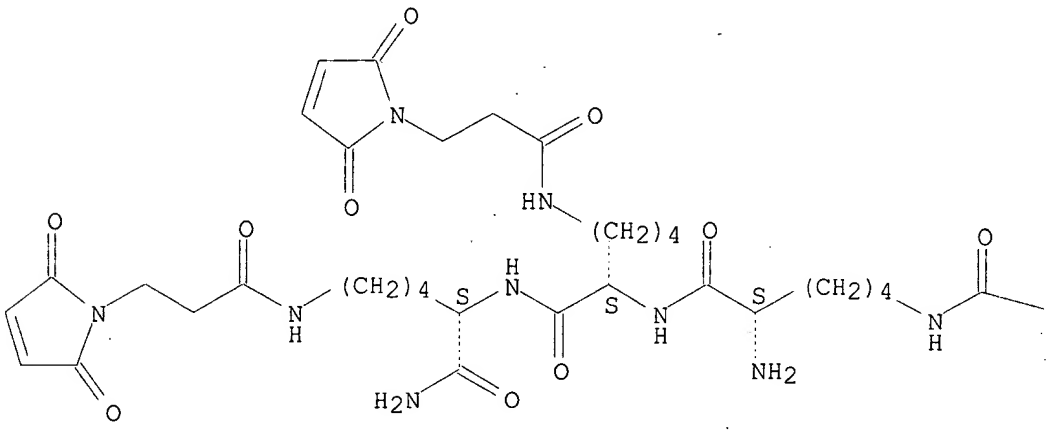
L3 ANSWER 48 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 146754-67-8 REGISTRY
CN L-Lysinamide, N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-, mono(trifluoroacetate) (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C39 H54 N10 O12 . C2 H F3 O2
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

CM 1

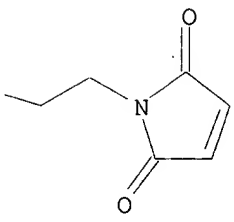
CRN 146754-66-7
CMF C39 H54 N10 O12

Absolute stereochemistry.

PAGE 1-A

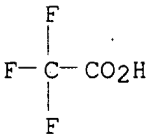


PAGE 1-B



CM 2

CRN 76-05-1
CMF C2 H F3 O2

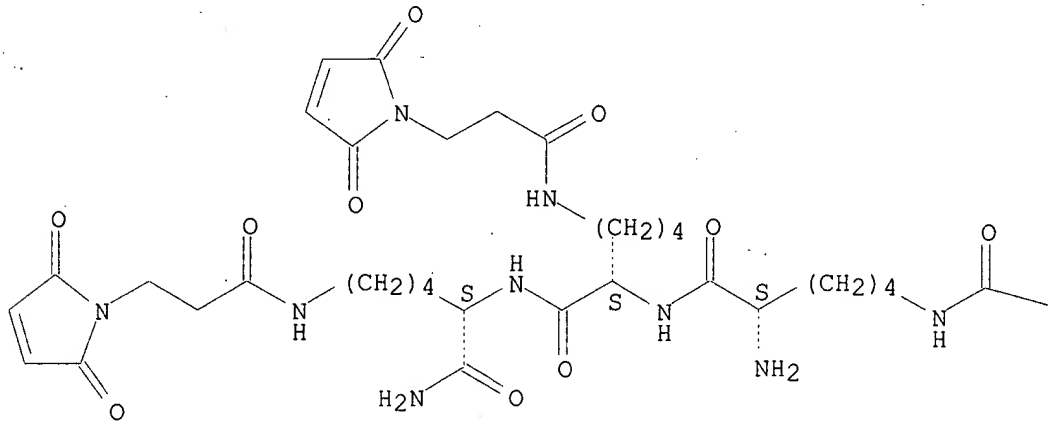


2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 49 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 146754-66-7 REGISTRY
CN L-Lysinamide, N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C39 H54 N10 O12
CI COM
SR CA

Absolute stereochemistry.

PAGE 1-A



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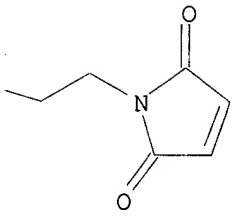
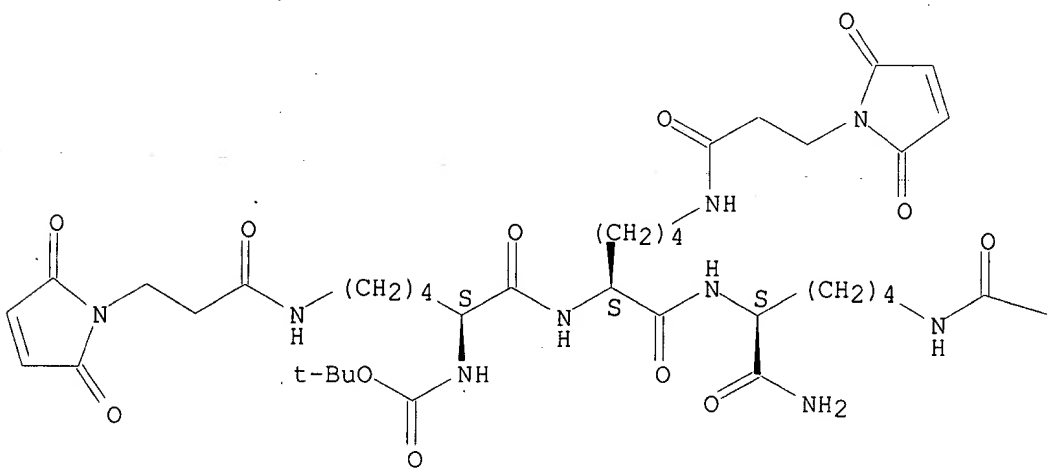


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

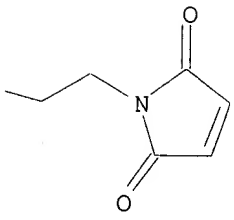
L3 ANSWER 50 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 146754-65-6 REGISTRY
CN L-Lysinamide, N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-N2-[(1,1-dimethylethoxy)carbonyl]-L-lysyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C44 H62 N10 O14
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



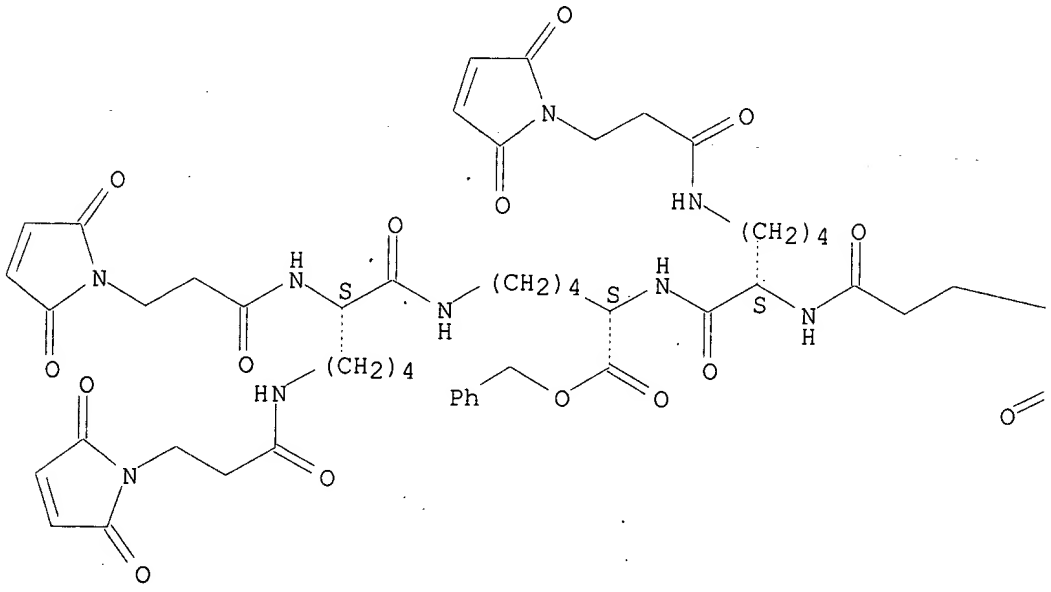
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

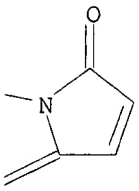
2 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 51 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 146754-61-2 REGISTRY
CN L-Lysine, N2,N6-bis[N2,N6-bis[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C53 H64 N10 O16
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.

PAGE 1-A



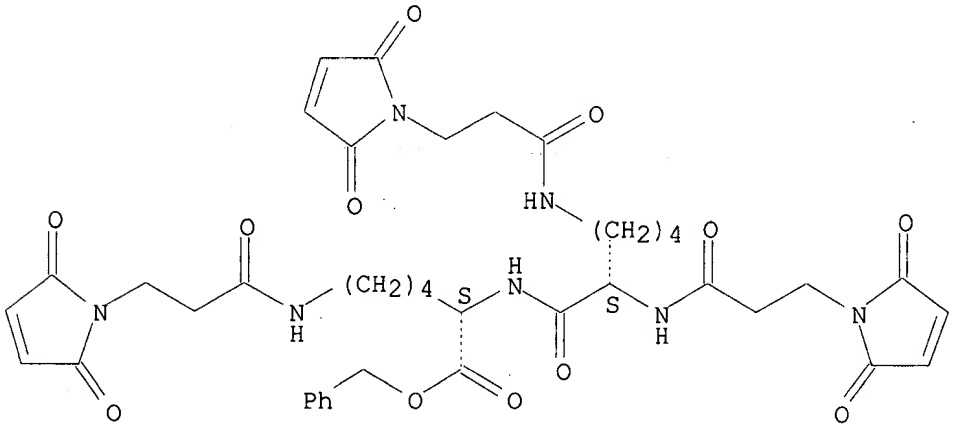


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 52 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 146754-60-1 REGISTRY
CN L-Lysine, N2-[N2,N6-bis[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysyl]-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-, phenylmethyl ester (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C40 H47 N7 O12
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

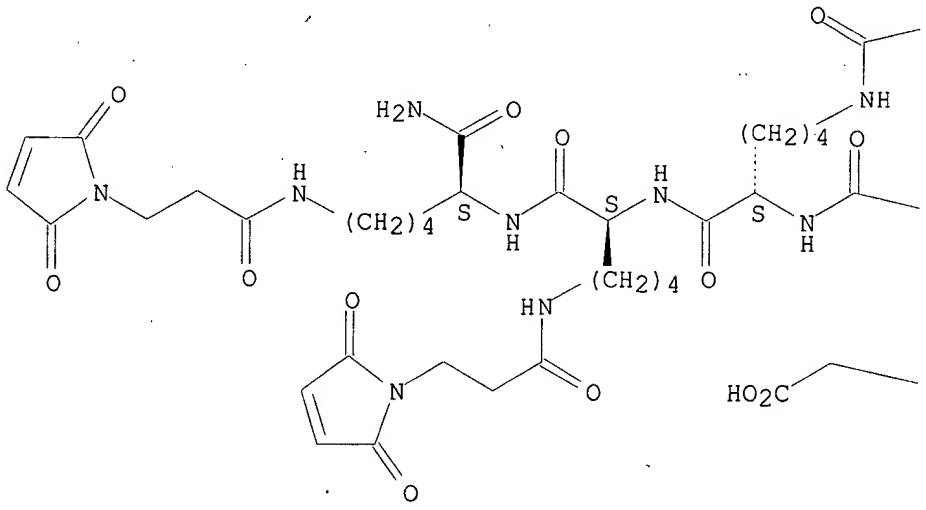
1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 53 OF 54 REGISTRY COPYRIGHT 2003 ACS

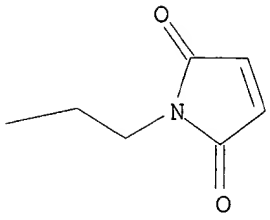
RN 146733-82-6 REGISTRY
CN L-Lysinamide, N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-N2-[1,4-dioxo-4-[[4-[1,4,7,10-tetrakis(carboxymethyl)-1,4,7,10-tetraazacyclododec-2-yl]butyl]amino]butyl]-L-lysyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]-L-lysyl-N6-[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)-1-oxopropyl]- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1,4,7,10-Tetraazacyclododecane, L-lysinamide deriv.
FS STEREOSEARCH
MF C63 H93 N15 O22
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

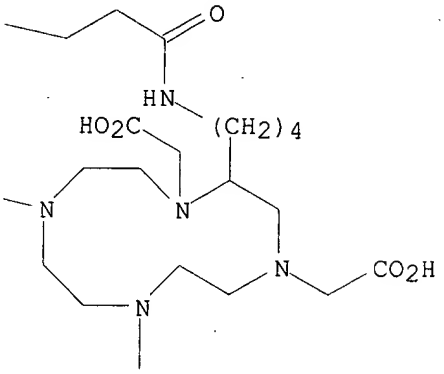
Absolute stereochemistry.

PAGE 1-A

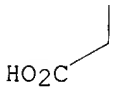


PAGE 1-B





PAGE 2-B

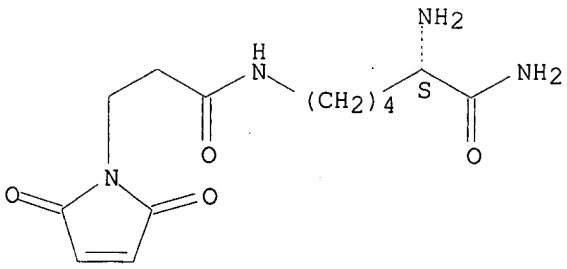


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1957 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3 REFERENCES IN FILE CAPLUS (1957 TO DATE)

L3 ANSWER 54 OF 54 REGISTRY COPYRIGHT 2003 ACS
RN 132034-12-9 REGISTRY
CN 1H-Pyrrole-1-propanamide, N-(5,6-diamino-6-oxohexyl)-2,5-dihydro-2,5-dioxo-, (S)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C13 H20 N4 O4
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1957 TO DATE)
1 REFERENCES IN FILE CAPLUS (1957 TO DATE)

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=> fil hcaplus
FILE 'HCAPLUS' ENTERED AT 15:34:04 ON 20 MAY 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)
```



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FILE COVERS 1907 - 20 May 2003  VOL 138 ISS 21
FILE LAST UPDATED: 19 May 2003  (20030519/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


=>
=>

=> d stat que l11 nos
L6          203 SEA FILE=REGISTRY ABB=ON  PLU=ON  YTSLIHSLIEESQNQQEKNEQELLELDKW
                ASLWNWF/SQSP
L7          146 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6
L8          113 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7(L)(?VIRAL? OR ?VIRU? OR
                HIV?)
L10          57 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L7 NOT (2003 OR 2002 OR
                2001)/PY
L11          39 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L10 AND L8


=>
=>

=> s l11 not l4
L12         39 L11 NOT L4

=> d ibib abs hitrn l12 1-39

L12  ANSWER 1 OF 39  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         2001:652880  HCAPLUS
DOCUMENT NUMBER:          135:191275
TITLE:                    HIV1 gp160 production with recombinant bacteria
INVENTOR(S):              Ferreira, Paulo Cesar Peregrino; Kroon, Erna Geessien;
                          Campos, Marco Antonio da Silva
PATENT ASSIGNEE(S):       Universidade Federal de Minas Gerais, Brazil
SOURCE:                   Braz. Pedido PI, 14 pp.
                          CODEN: BPXXDX
DOCUMENT TYPE:            Patent
LANGUAGE:                 Portuguese
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ----------------  ----  --------       ---------------  --------
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BR 9710824 A 20000523 BR 1997-10824 19971216
PRIORITY APPLN. INFO.: BR 1997-10824 19971216
AB Disclosed are HIV1 glycoprotein gp160 and a method for making gp160 by expressing the gp160 gene in bacteria and recovering the gp160 from the culture. The gp160 may be used in various immunol. methods, such as ELISA, Western blot, etc., for diagnosis. The glycoprotein may also find use as a vaccine to prevent HIV1 infection. Gp160 prodn. with recombinant Escherichia coli is described.
IT **239445-66-0P**
RL: BPN (Biosynthetic preparation); PRP (Properties); BIOL (Biological study); PREP (Preparation)
(amino acid sequence; **HIV1** gp160 prodn. with recombinant bacteria)

L12 ANSWER 2 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:24010 HCAPLUS
DOCUMENT NUMBER: 134:290001
TITLE: The possible involvement of CXCR4 in the inhibition of HIV-1 infection mediated by DP178/gp41
AUTHOR(S): Xu, Y.; Zhang, X.; Matsuoka, M.; Hattori, T.
CORPORATE SOURCE: Laboratory of Virus Immunology, Institute for Virus Research, Kyoto University, Kyoto, 606-8507, Japan
SOURCE: FEBS Letters (2000), 487(2), 185-188
CODEN: FEBLAL; ISSN: 0014-5793
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The N- (N36/DP107) and C-terminal peptides (C34/DP178) from two .alpha.-helical domains of human immunodeficiency virus type 1 (HIV-1) gp41 inhibited HIV infection. A single-round infection using pseudotyped virus clarified that a greater amt. of gp41-derived peptides was necessary for the inhibition of R5 virus (ADA) infection than for that of X4 virus (LAI) infection. Furthermore, R5X4 virus (89.6) infection via CCR5 needs more peptides for inhibition than its infection via CXCR4 does. A high sensitivity of X4 virus was partially ascribed to the inhibition of the 12G5 binding to CXCR4 by DP178LAI.
IT **159519-65-0**, DP178
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(possible involvement of CXCR4 in inhibition of **HIV**-1 infection mediated by DP178/gp41)
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:847765 HCAPLUS
DOCUMENT NUMBER: 134:4044
TITLE: Varicella-zoster virus carrying HIV env gene for use as live vaccines and in chickenpox and AIDS diagnosis
INVENTOR(S): Shiraki, Kimiyasu; Takahashi, Masaki
PATENT ASSIGNEE(S): Zaidan Hojin Osaka Biseibutsubyo Kenkyu Kai, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000333678	A2	20001205	JP 1999-104337	19990307

PRIORITY APPLN. INFO.: JP 1999-104337 19990307

AB Recombinant varicella-zoster virus (VZV) expressing HIV gene under the regulation of thymidine kinase (TK) gene promoter is disclosed. Oka varicella vaccine expressing HIV env gene, antigens from it, genomic DNA, live vaccine, and diagnostic reagent, are claimed. Recombinant varicella-zoster virus (VZV) expressing hepatitis B virus (HBV) PreS1, PreS2, and surface antigen (HBs) was constructed and examd. for its immunogenicity in guinea-pigs. Similarly, recombinant VZV expressing HIV env gene was constructed. Antigens from the recombinant VZV were used as diagnostic reagents for chickenpox and hepatitis B. Avirulent vaccines induced cellular immunity in chickenpox and AIDS.

IT **308310-41-0**
RL: PRP (Properties)
(unclaimed sequence; varicella-zoster **virus** carrying **HIV** env gene for use as live vaccines and in chickenpox and AIDS diagnosis)

L12 ANSWER 4 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:755939 HCAPLUS
DOCUMENT NUMBER: 134:275224
TITLE: New mechanism of action of anti-HIV drugs: T20 or DP178
AUTHOR(S): Hattori, Toshio
CORPORATE SOURCE: Graduate School of Medical Science, Tohoku University, Japan
SOURCE: Chiryogaku (2000), 34(9), 1016-1018
CODEN: CHRYDT; ISSN: 0386-8109
PUBLISHER: Raifu Saiensu Shuppan K.K.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese

AB A review, with 5 refs., discussing the effect of the new anti-HIV1 drug T20 or DP178 on gp41 glycoproteins.

IT **159519-65-0**, DP178
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(new mechanism of action of anti-**HIV** drugs: T20 or DP178)

L12 ANSWER 5 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:642426 HCAPLUS
DOCUMENT NUMBER: 133:305320
TITLE: Sensitivity of human immunodeficiency virus type 1 to the fusion inhibitor T-20 is modulated by coreceptor specificity defined by the V3 loop of gp120
AUTHOR(S): Derdeyn, Cynthia A.; Decker, Julie M.; Sfakianos, Jeffrey N.; Wu, Xiaoyun; O'Brien, William A.; Ratner, Lee; Kappes, John C.; Shaw, George M.; Hunter, Eric
CORPORATE SOURCE: Department of Microbiology, University of Alabama at Birmingham, Birmingham, AL, 35294, USA
SOURCE: Journal of Virology (2000), 74(18), 8358-8367
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB T-20 is a synthetic peptide that potently inhibits replication of human immunodeficiency virus type 1 by interfering with the transition of the transmembrane protein, gp41, to a fusion active state following interactions of the surface glycoprotein, gp120, with CD4 and coreceptor mols. displayed on the target cell surface. Although T-20 is postulated to interact with an N-terminal heptad repeat within gp41 in a trans-dominant manner, the authors show here that sensitivity to T-20 is strongly influenced by coreceptor specificity. When 14 T-20-naive primary isolates were analyzed for sensitivity to T-20, the mean 50% inhibitory concn. (IC50) for isolates that utilize CCR5 for entry (R5 viruses) was

0.8 log10 higher than the mean IC50 for CXCR4 (X4) isolates. Using NL4.3-based envelope chimeras that contain combinations of envelope sequences derived from R5 and X4 viruses, the authors found that determinants of coreceptor specificity contained within the gp120 V3 loop modulate this sensitivity to T-20. The IC50 for all chimeric envelope viruses contg. R5 V3 sequences was 0.6 to 0.8 log10 higher than that for viruses contg. X4 V3 sequences. In addn., the authors confirmed that the N-terminal heptad repeat of gp41 dets. the baseline sensitivity to T-20 and that the IC50 for viruses contg. GIV at amino acid residues 36 to 38 was 1.0 log10 lower than the IC50 for viruses contg. a G-to-D substitution. The results of this study show that gp120-coreceptor interactions and the gp41 N-terminal heptad repeat independently contribute to sensitivity to T-20. These results have important implications for the therapeutic uses of T-20 as well as for unraveling the complex mechanisms of virus fusion and entry.

IT **159519-65-0**, T-20
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sensitivity of human immunodeficiency **virus** type 1 to the gp41 fusion inhibitor T-20 is modulated by coreceptor specificity defined by V3 loop of gp120)

REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 6 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:553429 HCAPLUS
DOCUMENT NUMBER: 133:147459
TITLE: HIV drug resistance system
INVENTOR(S): Kappes, John C.; Wu, Xiaoyun; Shaw, George M.
PATENT ASSIGNEE(S): UAB Research Foundation, The, USA
SOURCE: PCT Int. Appl., 22 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000045833	A1	20000810	WO 2000-US2643	20000202

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-118283P P 19990202

AB T-20, a synthetic peptide corresponding to the 2nd heptad repeat (HR2) of HIV-1 gp41, blocks HIV-1 entry at nanogram concns. in vitro. To look for genetic evidence of virus selection and possible resistance development, population sequencing of plasma vRNA (cDNA) was performed at 0, 10, and 14 days of therapy by a method previously described (Nature 373:117, 1995). In 1 of 4 subjects treated with intermediate drug doses (30 mg bid), there was a major shift in the viral quasispecies within HR1 at amino acid position 36 (G to D). Mol. cloning and sequencing of 52 individual vRNA (cDNA) envelope clones from this subject confirmed this change in 50% of clones; in addn., other amino acid substitutions were identified at positions 36 (G to S), 32 (Q to R/H), 38 (V to A), and 39 (Q to R) as well as double mutations at 32, 36, and/or 39.

IT **159519-65-0**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**HIV** drug resistance system)
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:406756 HCAPLUS
DOCUMENT NUMBER: 133:144541
TITLE: The HIV-1 Cell Entry Inhibitor T-20 Potently Chemoattracts Neutrophils by Specifically Activating the N-Formylpeptide Receptor
AUTHOR(S): Hartt, Jennifer K.; Liang, Thomas; Sahagun-Ruiz, Alfredo; Wang, Ji-Ming; Gao, Ji-Liang; Murphy, Philip M.
CORPORATE SOURCE: Laboratory of Host Defenses, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD, 20892, USA
SOURCE: Biochemical and Biophysical Research Communications (2000), 272(3), 699-704
CODEN: BBRCA9; ISSN: 0006-291X
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB T-20, a synthetic peptide corresponding to the heptad repeat sequence of HIV-1 gp41, blocks HIV-1 entry by targeting gp41, and is currently in clin. trials as an anti-retroviral agent. The authors recently reported that in vitro T-20 also functions as a phagocyte chemoattractant and a chemotactic agonist at the phagocyte N-formylpeptide receptor (FPR). Here the authors show that T-20 is also a potent chemotactic agonist in vitro at a related human phagocyte receptor FPRL1R. To test the relative importance of FPR and FPRL1R in primary cells, the authors identified the corresponding mouse T-20 receptors, mFPR and FPR2, which are both expressed in neutrophils, and compared T-20 action on neutrophils from wild type and mFPR knockout mice. Surprisingly, although T-20 activates mFPR and FPR2 in transfected cells with equal potency and efficacy in both calcium flux and chemotaxis assays, neutrophils from mFPR knockout mice did not respond to T-20. These results provide genetic evidence that FPR is the major phagocyte T-20 receptor in vivo and point to the potential feasibility of studying T-20 effects on immunity in a mouse model. This may help define the cause of local inflammation after T-20 injection that has recently been reported in Phase I clin. trials. (c) 2000 Academic Press.
IT **159519-65-0**, T-20
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**HIV**-1 cell entry inhibitor T-20 potently chemoattracts neutrophils by specifically activating N-formylpeptide receptor in relation to inflammation)
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:119743 HCAPLUS
DOCUMENT NUMBER: 132:288345
TITLE: Sensitivity to a nonpeptidic compound (RPR103611) blocking human immunodeficiency virus type 1 Env-mediated fusion depends on sequence and accessibility of the gp41 loop region
AUTHOR(S): Labrosse, Beatrice; Treboute, Carole; Alizon, Marc
CORPORATE SOURCE: INSERM U.332, Institut Cochin de Genetique

Moleculaire, Paris, 75014, Fr.
SOURCE: Journal of Virology (2000), 74(5), 2142-2150
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The triterpene RPR103611 is an efficient inhibitor of membrane fusion mediated by the envelope proteins (Env, gp120-gp41) of CXCR4-dependent (X4) human immunodeficiency virus type 1 (HIV-1) strains, such as HIV-1LAI (LAI). Other X4 strains, such as HIV-1NDK (NDK), and CCR5-dependent (R5) HIV-1 strains, such as HIV-1ADA (ADA), were totally resistant to RPR103611. Anal. of chimeric LAI-NDK Env proteins identified a fragment of the NDK gp41 ectodomain detg. drug resistance. A single difference at position 91, leucine in LAI and histidine in NDK, apparently accounted for their sensitivity or resistance to RPR103611. The authors had previously identified a mutation of isoleucine 84 to serine in a drug escape LAI variant. Both I84 and L91 are located in the "loop region" of gp41 sepg. the proximal and distal helix domains. Nonpolar residues in this region therefore appear to be important for the antiviral activity of RPR103611 and are possibly part of its target. However, another mechanism had to be envisaged to explain the drug resistance of ADA, since its gp41 loop region was almost identical to that of LAI. Fusion mediated by chimeric Env consisting of LAI gp120 and ADA gp41, or the reciprocal construct, was fully blocked by RPR103611. The gp120-gp41 complex of R5 strains is stable, relative to that of X4 strains, and this stability could play a role in their drug resistance. Indeed, when the postbinding steps of ADA infection were performed under mildly acidic conditions (pH 6.5 or 6.0), a treatment expected to favor dissocn. of gp120, the authors achieved almost complete neutralization by RPR103611. The drug resistance of NDK was partially overcome by preincubating virus with sol. CD4, a gp120 ligand inducing conformational changes in the Env complex. The antiviral efficacy of RPR103611 therefore depends on the sequence of the gp41 loop and the stability of the gp120-gp41 complex, which could limit the accessibility of this target.

IT **264584-24-9**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(amino acid sequence; sensitivity to a nonpeptidic compd. (RPR103611) blocking human immunodeficiency **virus** type 1 Env-mediated fusion depends on sequence and accessibility of gp41 loop region in relation to stability of gp120-gp41 complex)

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 9 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:46951 HCAPLUS
DOCUMENT NUMBER: 132:118353
TITLE: Methods for the detection of non-pathogenic HIV-1 strains containing deletions in the nef coding region and U3 region of the LTR
INVENTOR(S): Deacon, Nicholas John; McPhee, Dale Alan; Crowe, Suzanne
PATENT ASSIGNEE(S): The MacFarlane Burnet Centre for Medical Research Ltd., Australia
SOURCE: U.S., 308 pp., Cont.-in-part of U. S. Ser. No. 388,353.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 6015661	A	20000118	US 1995-488551	19950607
US 6010895	A	20000104	US 1995-388353	19950214
PRIORITY APPLN. INFO.:			US 1995-388353	19950214
			AU 1995-3021	19950517

AB The present invention is directed toward immunol.- and nucleic acid-based methodologies for the detection of non-pathogenic human immunodeficiency virus type 1 (HIV-1) strains in the body fluids of HIV-infected individuals. A blood donor infected with HIV-1 and a cohort of 6 blood or blood product recipients infected from this donor were studied. These patients, who remained free of HIV-1-related disease and displayed stable and normal CD4 lymphocyte counts 10-14 yr after infection, were termed long-term nonprogressors (LTNPs). The mol. characterization of HIV-1 sequences obtained from either virus isolates or patient peripheral blood mononuclear cells (PBMCs) of LTNPs identified similar deletions in the nef gene and in the region of overlap of nef and the U3 region of the long terminal repeat (LTR). These deletions corresponded to amino acids 166-206, or nucleotides 9281 to 9437, of the HIV-1NL43 nef/LTR region. Methods were developed to detect the presence of nonpathogenic HIV-1 strains carrying these deletions in HIV-infected patients.

IT **169874-95-7**
RL: ADV (Adverse effect, including toxicity); ANT (Analyte); PRP (Properties); ANST (Analytical study); BIOL (Biological study)
(amino acid sequence; methods for the detection of non-pathogenic **HIV**-1 strains contg. deletions in the nef coding region and U3 region of the LTR)

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 10 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:39264 HCAPLUS
DOCUMENT NUMBER: 132:317484
TITLE: The emerging role of fusion inhibitors in HIV infection
AUTHOR(S): De Clercq, Erik
CORPORATE SOURCE: Rega Institute for Medical Research, Katholieke Universiteit Leuven, Louvain, Belg.
SOURCE: Drugs in R&D (1999), 2(5), 321-331
CODEN: DRDDFD; ISSN: 1174-5886
PUBLISHER: Adis International Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with 47 refs. Fusion of HIV with its host cell requires the interaction of the viral envelope glycoprotein 120 (gp 120) with the chemokine receptor CXCR4 [T cell-tropic (T-tropic) or X4 HIV strains] or CCR5 [macrophage-tropic (M-tropic) or R5 HIV strains] followed by a "spring-loaded" action of the glycoprotein 41 (gp41) that ensures fusion of the viral and cellular lipid membranes and permits the viral nucleocapsid to enter the cell. The overall fusion process can be blocked by a no. of compds. These include siamycin analogs, SPC 3 (a synthetic peptide derived from the V3 domain of gp120), pentafuside (T 20, DP 178) [a synthetic peptide corresponding to amino acid residues 127 to 162 of gp41], the betulinic acid deriv. RPR 103611, TAK 779 (a low mol. wt. non-peptide CCR5 antagonist) and a no. of compds. (T 22, T 134, ALX40-4C, CGP64222 and AMD 3100) that are targeted at the CXCR4 receptor. In particular, the bicyclam AMD 3100 has proved highly potent and selective as a CXCR4 antagonist that blocks the infectivity of X4 HIV strains in the nanomolar concn. range. The proof-of-concept that fusion inhibitors should be able to suppress viral replication in vivo has been demonstrated with pentafuside. Pentafuside and AMD 3100 have now proceeded to phase II clin. trials.

IT **159519-65-0**, Pentafuside
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(the emerging role of fusion inhibitors in **HIV** infection)
REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 11 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:12484 HCAPLUS
DOCUMENT NUMBER: 132:247579
TITLE: Inhibition of HIV-1 Entry Before gp41 Folds Into its Fusion-active Conformation
AUTHOR(S): Kliger, Yossef; Shai, Yechiel
CORPORATE SOURCE: Department of Biological Chemistry, The Weizmann Institute of Science, 76100, Israel
SOURCE: Journal of Molecular Biology (2000), 295(2), 163-168
CODEN: JMOBAK; ISSN: 0022-2836
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB HIV-1 entry into its host cell is modulated by its transmembrane envelope glycoprotein (gp41). The core of the activated conformation of gp41 consists of a trimer of heterodimers comprising a leucine/isoleucine zipper sequence (represented here by the synthetic peptide N36 or by the longer N51 peptide) and a C-terminal highly conserved region (represented here by C34). A correlation was found between the action of DP178, which is a potent inhibitor of HIV-1 entry into its host cell, and its ability to interact with the leucine/isoleucine zipper sequence. This correlation was further tested and confirmed by CD spectroscopy. We found that whereas DP178 perturbs the partial .alpha.-helix nature of peptides corresponding to the leucine/isoleucine zipper sequence (N36 or N51), it cannot perturb the trimer of heterodimers conformation, modeled by the complex of N36 or N51 with C34. Therefore, we suggest that the already formed trimer of heterodimers is not the target of inhibition by DP178. Our results are consistent with a model in which DP178 acquires its inhibitory activity by binding to an earlier intermediate of gp41, in which the N and C peptide regions are not yet assocd., thus allowing DP178 to bind to the leucine/isoleucine zipper sequence and consequently to inhibit transition to the fusion-active conformation. (c) 2000 Academic Press.
IT **159519-65-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(inhibition of **HIV**-1 entry before gp41 folds into its fusion-active conformation)
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 12 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:10566 HCAPLUS
DOCUMENT NUMBER: 132:74538
TITLE: Non-pathogenic strains of HIV-1 containing mutations in the nef gene or the U3 region of the long terminal repeat
INVENTOR(S): Deacon, Nicholas John; Learmont, Jennifer Catherine; McPhee, Dale Alan; Crowe, Suzanne; Cooper, David
PATENT ASSIGNEE(S): Macfarlane Burnet Centre for Medical Research Limited, Australia; Australian Red Cross Society
SOURCE: U.S., 243 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6010895	A	20000104	US 1995-388353	19950214
US 6015661	A	20000118	US 1995-488551	19950607
PRIORITY APPLN. INFO.:			US 1995-388353	19950214
			AU 1995-3021	19950517

AB This invention is directed toward non-pathogenic human immunodeficiency virus type 1 (HIV-1) strains contg. deletions in the nef gene and U3 region of the long terminal repeat (LTR). A blood donor infected with HIV-1 and a cohort of 6 blood or blood product recipients infected from this donor were identified. These individuals, who remained free of HIV-1-related disease with stable and normal CD4+ lymphocyte counts 10-14 yr after infection, were termed long-term nonprogressors (LTNPs). The mol. characterization of HIV-1 sequences obtained from either virus isolates or patient peripheral blood mononuclear cells (PBMCs) of LTNPs identified similar deletions in the nef gene and in the region of overlap of nef and the U3 region of the LTR. Full-length sequencing of one isolate genome and amplification of selected HIV-1 genome regions from other cohort members revealed no other abnormalities of obvious functional significance. These deletions corresponded to amino acids 166-206, or nucleotides 9281-9437, of the HIV-1NL43 nef/LTR region. These data illustrate the importance of nef or the U3 region of the LTR in detg. the pathogenicity of HIV-1. These non-pathogenic strains should prove useful, inter alia, in the development of HIV-1-specific diagnostic reagents.

IT **169874-95-7**
RL: PRP (Properties)
(unclaimed protein sequence; non-pathogenic strains of **HIV**-1 contg. mutations in the nef gene or the U3 region of the long terminal repeat)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 13 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:674767 HCAPLUS
DOCUMENT NUMBER: 132:18548
TITLE: Selection of gp41-mediated HIV-1 cell entry inhibitors from biased combinatorial libraries of non-natural binding elements
AUTHOR(S): Ferrer, Marc; Kapoor, Tarun M.; Strassmaier, Tim; Weissenhorn, Winfried; Skehel, John J.; Oprian, Dan; Schreiber, Stuart L.; Wiley, Don C.; Harrison, Stephen C.
CORPORATE SOURCE: Department of Molecular and Cellular Biology, Harvard University, Cambridge, MA, 02138, USA
SOURCE: Nature Structural Biology (1999), 6(10), 953-960
CODEN: NSBIEW; ISSN: 1072-8368
PUBLISHER: Nature America
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The trimeric, .alpha.-helical coiled-coil core of the HIV-1 gp41 ectodomain is thought to be part of a transient, receptor-triggered intermediate in the refolding of the envelope glycoprotein into a fusion-active conformation. In an effort to discover small org. inhibitors that block gp41 activation, we have generated a biased combinatorial chem. library of non-natural binding elements targeted to the gp41 core. From this library of 61,275 potential ligands, we have identified elements that, when covalently attached to a peptide derived from the gp41 outer-layer .alpha.-helix, contribute to the formation of a stable complex with the inner core and to inhibition of gp41-mediated cell fusion.

IT **159519-65-0**, DP-178
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); BIOL (Biological study)
(selection of gp41-mediated **HIV**-1 cell entry inhibitors from biased combinatorial libraries of non-natural binding elements)
REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 14 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:577149 HCAPLUS
DOCUMENT NUMBER: 131:180832
TITLE: Process to produce recombinant protein gp160 of human immunodeficiency virus
INVENTOR(S): Ferreira, Paulo Cesar Peregrino; Kroon, Erna Geessien; Campos, Marco Antonio da Silva
PATENT ASSIGNEE(S): Universidade Federal de Minas Gerais, Brazil
SOURCE: Braz. Pedido PI, 11 pp.
CODEN: BPXXDX
DOCUMENT TYPE: Patent
LANGUAGE: Portuguese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BR 9700856	A	19981215	BR 1997-856	19970102

PRIORITY APPLN. INFO.: BR 1997-856 19970102
AB The present invention describes recombinant gp160 protein derived from the human immunodeficiency virus 1, and the process of prodn. of the recombinant protein using genetic engineering techniques, to be used in immunodiagnosis (such as ELISA) or in vaccines. Thus, DNA sequences encoding the hybrid protein were amplified, fractionated, purified, and cloned on plasmid vectors for expression in appropriate bacteria.
IT **239445-66-0D**, gp160 (human immunodeficiency **virus**-1)
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(process for expression and prodn. of recombinant protein gp160 derived from human immunodeficiency **viruses** (**HIV**-1))

L12 ANSWER 15 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:458586 HCAPLUS
DOCUMENT NUMBER: 131:294951
TITLE: Pentafuside (Trimeris)
AUTHOR(S): Press, Natasha; Hedberg, Brad; Conway, Brian
CORPORATE SOURCE: Departments of Medicine and Pharmacology & Therapeutics, Viridae Clinical Sciences, University of British Columbia, Vancouver, BC, V6Z 1Y8, Can.
SOURCE: IDrugs (1999), 2(7), 702-710
CODEN: IDRUFN; ISSN: 1369-7056
PUBLISHER: Current Drugs Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 92 refs. Pentafuside (T-20) is a 36-amino-acid peptide compd. under development by Trimeris for the potential treatment of HIV infection, for which it received US FDA fast track designation in Feb. 1999. It corresponds to amino acids 638-673 of HIV-1(LA1) transmembrane protein gp41. Pentafuside blocks HIV infection, uniquely, by preventing membrane fusion, an essential process in viral replication. In preclin. studies it blocked infection of cells by HIV and prevented the fusion of one HIV-infected cell with another. In Mar. 1998, Trimeris signed a letter of intent with DuPont Merck Pharm Co to conduct trials of Merck's efavirenz in combination with pentafuside. The trial planned to enroll up to 48 HIV-infected individuals at three sites in the US, who have begun to fail their existing triple combination therapy. Prior exposure to

nonnucleoside reverse transcriptase inhibitors and protease inhibitors, other than indinavir, will be among the exclusion criteria for the study. The 1st 10 days of the study is a dose-optimization period that will assess the safety, pharmacokinetics and antiviral activity of multiple ascending doses of pentafuside. After completion of this period, subjects will be eligible to participate in an extension period of at .gtoreq.6 mo, during which pentafuside will be administered in combination with efavirenz and two protease inhibitors. The use of pentafuside and truncated peptides in combination with other antiviral agents is claimed in WO-09640191.

IT **159519-65-0P**, Pentafuside
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(pharmacol. of pentafuside as **antiviral** compd. in human **HIV** infection)

REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 16 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:413560 HCAPLUS
DOCUMENT NUMBER: 131:222921
TITLE: Pentafuside Trimeris
AUTHOR(S): Press, Natasha; Hedberg, Brad; Conway, Brian
CORPORATE SOURCE: Departments of Medicine and Pharmacology & Therapeutics Viridae Clinical, University of British Columbia, Vancouver, BC, V6Z 1Y8, Can.
SOURCE: Current Opinion in Anti-Infective Investigational Drugs (1999), 1(2), 171-178
CODEN: COADFY; ISSN: 1464-8458
PUBLISHER: Current Drugs Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with many refs. Pentafuside (T-20) is a 36 amino acid peptide under development by Trimeris for the potential treatment of HIV infection, for which it received US FDA fast track designation in Feb. 1999 [313596,182694]. It corresponds to amino acids 638 to 673 of HIV-1(LA1) transmembrane protein, gp41 [238873]. Pentafuside blocks HIV infection, uniquely, by preventing membrane fusion, an essential process in viral replication. In preclin. studies, it blocked infection of cells by HIV and prevented the fusion of one HIV-infected cell with another [171217]. In Mar. 1998, Trimeris signed a letter of intent with DuPont Merck Pharm Co to conduct trials of Merck's efavirenz in combination with pentafuside. The trial planned to enroll .ltoreq.48 HIV-infected individuals at three sites in the US, who have begun to fail their existing triple combination therapy. Prior exposure to non-nucleoside reverse transcriptase inhibitors and protease inhibitors, other than indinavir, will be among the exclusion criteria for the study. The first 10 days of the study are a dose-optimization period that will assess the safety, pharmacokinetics and antiviral activity of multiple ascending doses of pentafuside. After completion of this period, subjects will be eligible to participate in an extension period of at least six months, during which pentafuside will be administered in combination with efavirenz and two protease inhibitors [281696]. The use of pentafuside and truncated peptides in combination with other antiviral agents is claimed in WO-09640191.

IT **159519-65-0**, Pentafuside
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(pentafuside development by Trimeris for **HIV** infection treatment in humans)

L12 ANSWER 17 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:347451 HCAPLUS
DOCUMENT NUMBER: 131:143434
TITLE: T20/DP178, an ectodomain peptide of human immunodeficiency virus type 1 gp41, is an activator of human phagocyte N-formyl peptide receptor
AUTHOR(S): Su, Shao Bo; Gong, Wang-Hua; Gao, Ji-Liang; Shen, Wei-Ping; Grimm, Michael C.; Deng, Xiyun; Murphy, Philip M.; Oppenheim, Joost J.; Wang, Ji Ming
CORPORATE SOURCE: Laboratory of Molecular Immunoregulation, Division of Basic Sciences, and Intramural Research Support Program, SAIC Frederick, National Cancer Institute-Frederick Cancer Research and Development Center, Frederick, MD, 21702-1201, USA
SOURCE: Blood (1999), 93(11), 3885-3892
CODEN: BLOOAW; ISSN: 0006-4971
PUBLISHER: W. B. Saunders Co.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Human immunodeficiency virus type 1 (HIV-1) envelope protein gp41 mediates viral fusion with human host cells. The peptide segment T20/DP178, located in the C-terminus of the ectodomain of gp41, interacts with the N-terminal leucine zipper-like domain on gp41 to establish the fusogenic conformation of the virus. Synthetic T20/DP178 peptide is highly efficacious in inhibiting HIV-1 infection in vitro by disrupting the transformation of fusogenic status of viral gp41; thus, it has been proposed for clin. trial. The authors report that synthetic T20/DP178 is a chemoattractant and activator of human peripheral blood phagocytes but not of T lymphocytes. The authors further demonstrate that T20/DP178 specifically activates a seven-transmembrane, G-protein-coupled phagocyte receptor for N-formylated chemotactic peptides, formyl peptide receptor (FPR). Moreover, synthetic T20/DP178 analogs lacking N-terminal amino acids acted as FPR antagonists. The results suggest that gp41 peptides regulate phagocyte function via FPR and identify a novel mechanism by which HIV-1 may modulate innate immunity.

IT **235787-61-8**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(ectodomain peptide of human immunodeficiency **virus** type 1 gp41 is activator and chemoattractant for human phagocytes via formyl peptide receptor)

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 18 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:732698 HCAPLUS
DOCUMENT NUMBER: 130:104835
TITLE: Potent suppression of HIV-1 replication in humans by T-20, a peptide inhibitor of gp41-mediated virus entry
AUTHOR(S): Kilby, J. Michael; Hopkins, Sam; Venetta, Thomas M.; DiMassimo, Betty; Cloud, Gretchen A.; Lee, Jeannette Y.; Alldredge, Leslie; Hunter, Eric; Lambert, Dennis; Bolognesi, Dani; Matthews, Thomas; Johnson, M. Ross; Nowak, Martin A.; Shaw, George M.; Saag, Michael S.
CORPORATE SOURCE: Dep. Med., Univ. Alabama at Birmingham, Birmingham, AL, 35294-2050, USA
SOURCE: Nature Medicine (New York) (1998), 4(11), 1302-1307
CODEN: NAMEFI; ISSN: 1078-8956
PUBLISHER: Nature America
DOCUMENT TYPE: Journal

LANGUAGE: English
AB T-20, a synthetic peptide corresponding to a region of the transmembrane subunit of the HIV-1 envelope protein, blocks cell fusion and viral entry at concns. of less than 2 ng/mL in vitro. We administered i.v. T-20 (monotherapy) for 14 days to sixteen HIV-infected adults in four dose groups (3, 10, 30 and 100 mg twice daily). There were significant, dose-related declines in plasma HIV RNA in all subjects who received higher dose levels. All four subjects receiving 100 mg twice daily had a decline in plasma HIV RNA to less than 500 copies/mL, by bDNA assay. A sensitive RT-PCR assay (detection threshold 40 copies/mL) demonstrated that, although undetectable levels were not achieved in the 14-day dosing period, there was a 1.96 log10 median decline in plasma HIV RNA in these subjects. This study provides proof-of-concept that viral entry can be successfully blocked in vivo. Short-term administration of T-20 seems safe and provides potent inhibition of HIV replication comparable to anti-retroviral regimens approved at present.
IT **159519-65-0**, T-20 Peptide
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(potent suppression of **HIV**-1 replication in humans by T-20, a peptide inhibitor of gp41-mediated **virus** entry)
REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 19 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:481908 HCAPLUS
DOCUMENT NUMBER: 129:235586
TITLE: In vitro study of alginate/chitosan microspheres for controlled release of the anti-HIV drug T20
AUTHOR(S): Yan, C.; Zhang, H.; Lambert, D. M.; Ussery, M. A.; Nielsen, C. J.
CORPORATE SOURCE: Enterprise Technology Solutions, LC, Frederick, MD, 21702, USA
SOURCE: Proceedings of the International Symposium on Controlled Release of Bioactive Materials (1998), 25th, 510-511
CODEN: PCRMEY; ISSN: 1022-0178
PUBLISHER: Controlled Release Society, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB T20 (a peptide) was encapsulated into alginate/chitosan microspheres by an aq. diffusion method providing a significantly slower release rate of the drug than the control.
IT **159519-65-0**, T20
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(in vitro study of alginate/chitosan microspheres for controlled release of anti-**HIV** drug T20)
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 20 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:275963 HCAPLUS
DOCUMENT NUMBER: 129:36036
TITLE: Quantitation of a 36-amino-acid peptide inhibitor of HIV-1 membrane fusion in animal and human plasma using high-performance liquid chromatography and fluorescence detection
AUTHOR(S): Lawless, Mary K.; Hopkins, Sam; Anwer, Mohmed K.
CORPORATE SOURCE: Trimeris, Inc., Durham, NC, 27707, USA
SOURCE: Journal of Chromatography, B: Biomedical Sciences and Applications (1998), 707(1 + 2), 213-217

CODEN: JCBBEP; ISSN: 0378-4347
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Selective extn. of a 36-amino-acid peptide (DP-178, T20, pentafuside) from the protein matrixes of animal and human plasma was achieved using acetonitrile contg. 1% trifluoroacetic acid and 1% n-nonyl-.beta.-D-glucopyranoside. The peptide concn. of the ext. was measured using reversed-phase high-performance liq. chromatog. (RP-HPLC) and fluorescence detection. The eluent was excited at 280 nm and the intrinsic fluorescence signal was collected at 350 nm. Recovery of T20 from the plasma matrixes was 75% (mouse), 60% (rat), 50% (cynomolgus monkey), and 55% (human) based on parallel-processed aq. T20 std. solns. The fluorescence peak area vs. concn. of T20 was linear in the range 4-160 ng/mL based on the final solute concn. in the HPLC vial, corresponding to original plasma concns. of 100-4000 ng/mL. Expts. with truncated analogs of T20 demonstrate that this assay offers the advantage of detecting metabolites attributable to bio-transformation degrdn. processes differing by as little as one amino acid from the original peptide.
IT **159519-65-0P**, T 20
RL: ANT (Analyte); PUR (Purification or recovery); ANST (Analytical study); PREP (Preparation)
(detn. of pentafuside, inhibitor of **HIV**-1 membrane fusion, in animal and human plasma using HPLC and fluorescence detection)
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 21 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:232468 HCAPLUS
DOCUMENT NUMBER: 129:2665
TITLE: Capture of an early fusion-active conformation of HIV-1 gp41
AUTHOR(S): Furuta, Rika A.; Wild, Carl T.; Weng, Yongkai; Weiss, Carol D.
CORPORATE SOURCE: Center for Biologics Evaluation and Research (CBER), Food and Drug Administration (FDA), Office of Vaccines, Bethesda, MD, 20892-4555, USA
SOURCE: Nature Structural Biology (1998), 5(4), 276-279
CODEN: NSBIEW; ISSN: 1072-8368
PUBLISHER: Nature America
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Using an inhibitory synthetic peptide (DP-178) from HIV-1 gp41, HIV-1 envelope glycoprotein (Env) undergoing conformational changes during virus entry was trapped. Data show that DP-178 binds gp41 and inhibits Env-mediated membrane fusion after gp 120 interacts with cellular receptors, indicating that conformational changes involving the coiled coil domain of gp41 are required for entry. Capture of this fusion-active conformation of Env provides insights into the early events leading to Env-mediated membrane fusion.
IT **159519-65-0**, DP-178
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(capture of an early fusion-active conformation of **HIV**-1 gp41)
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 22 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:64927 HCAPLUS
DOCUMENT NUMBER: 128:203975
TITLE: Dilation of the human immunodeficiency virus-1

envelope glycoprotein fusion pore revealed by the inhibitory action of a synthetic peptide from gp41
AUTHOR(S): Munoz-Barroso, Isabel; Durell, Stewart; Sakaguchi, Kazuyasu; Appella, Ettore; Blumenthal, Robert
CORPORATE SOURCE: Laboratory of Experimental and Computational Biology, National Institutes of Health, Frederick, MD, USA
SOURCE: Journal of Cell Biology (1998), 140(2), 315-323
CODEN: JCLBA3; ISSN: 0021-9525
PUBLISHER: Rockefeller University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors monitored fusion between cell pairs consisting of a single human immunodeficiency virus-1 (HIV-1) envelope glycoprotein-expressing cell and a CD4+ target cell, which had been labeled with both a fluorescent lipid in the membrane and a fluorescent solute in the cytosol. The authors developed a new 3-color assay to keep track of the cell into which fluorescent lipids and/or solutes are redistributed. Lipid and solute redistribution occur as a result of opening a lipid-permissive fusion pore and a solute-permissive fusion pore (FPs), resp. A synthetic peptide (DP178) corresponding to residues 643-678 of the HIV-1LAI gp120-gp41 sequence (Wild, C.T., et al., 1994) completely inhibited FPs at 50 ng/mL, whereas at that concn. there was 20-30% fusion activity measured by the lipid redistribution. The differences detected in lipid mixing vs. contents mixing are maintained up to 6 h of coculture of gp120-41-expressing cells with target cells, indicating that DP178 can "clamp" the fusion complex in the lipid mixing intermediate for very long time periods. A peptide from the N-terminal of gp41, DP107, inhibited HIV-1LAI gp120-gp41-mediated cell fusion at higher concns., but with no differences between lipid and aq. dye redistribution at the different inhibitor concns. The inhibition of solute redistribution by DP178 was complete when the peptide was added to the fusion reaction mixt. during the first 15 min of coculture. The authors have analyzed the inhibition data in terms of a fusion pore dilation model that incorporates the recently detd. high resoln. structure of the gp41 core.
IT **159519-65-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(**HIV**-1 envelope glycoprotein fusion pore dilation revealed by inhibitory action of synthetic peptide from gp41)

L12 ANSWER 23 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1998:52533 HCAPLUS
DOCUMENT NUMBER: 128:203868
TITLE: Determinants of human immunodeficiency virus type 1 resistance to gp41-derived inhibitory peptides
AUTHOR(S): Rimsky, Laurence T.; Shugars, Diane C.; Matthews, Thomas J.
CORPORATE SOURCE: Department of Surgery, Duke University Medical Center, Durham, NC, 27710, USA
SOURCE: Journal of Virology (1998), 72(2), 986-993
CODEN: JOVIAM; ISSN: 0022-538X
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A synthetic peptide, DP178, contg. amino acids 127-162 of the human immunodeficiency virus type 1 (HIV-1) gp41 Env glycoprotein, is a potent inhibitor of virus infection and virus mediated cell-to-cell fusion (C. Wild, et al., 1993). In an effort to understand the mechanism of action of this peptide, the authors derived resistant variants of HIV-1IIIB and NL4-3 by serial virus passage in the presence of increasing doses of the peptide. Sequence anal. of the resistant isolates suggested that a contiguous 3-amino-acid sequence within the N-terminal heptad repeat motif of gp41 was assocd. with resistance. Site-directed mutagenesis studies

confirmed this observation and indicated that changes in 2 of these 3 residues were necessary for development of the resistant phenotype. Direct binding of DP178 to recombinant protein and synthetic peptide analogs contg. the wild-type and mutant heptad repeat sequences revealed a strong correlation between DP178 binding and the biol. sensitivity of the corresponding virus isolates to DP178. The results are discussed from the standpoints of the mechanism of action of DP178 and recent crystallog. information for a core structure of the gp41 ectodomain.

IT **159519-65-0**
RL: PRP (Properties)
(determinants of human immunodeficiency **virus** type 1 resistance to gp41-derived inhibitory peptide DP178)

L12 ANSWER 24 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:802576 HCAPLUS
DOCUMENT NUMBER: 128:123475
TITLE: Inhibition of HIV type 1 infectivity by constrained .alpha.-helical peptides: implications for the viral fusion mechanism
AUTHOR(S): Judice, J. Kevin; Tom, Jeffrey Y. K.; Huang, Wei; Wrin, Terri; Vennari, Joann; Petropoulos, Christos J.; McDowell, Robert S.
CORPORATE SOURCE: Dep. Bioorga. Chem., Genentech, Inc., South San Francisco, CA, 94080, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1997), 94(25), 13426-13430
CODEN: PNASA6; ISSN: 0027-8424
PUBLISHER: National Academy of Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Linear peptides derived from the membrane proximal region of the gp41 ectodomain are effective inhibitors of HIV type 1 (HIV-1)-mediated fusion events. These inhibitory peptides lack structure in soln., rendering mechanistic interpretation of their activity difficult. Using structurally constrained analogs of these mols., we demonstrate that the peptides inhibit infectivity by adopting a helical conformation. Moreover, we show that a specific face of the helix must be exposed to block viral infectivity. Recent crystal structures show that the region of gp41 corresponding to the inhibitory peptides is helical and uses the analogous face to pack against a groove formed by an N-terminal coiled-coil trimer. Our results provide a direct link between the inhibition of HIV-1 infectivity by these peptides and the x-ray structures, and suggest that the conformation of gp41 obsd. by crystallog. represents the fusogenic state. Other agents that block HIV-1 infectivity by binding to this groove may hold promise for the treatment of AIDS.

IT **159519-65-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(inhibition of **HIV** type 1 infectivity by constrained .alpha.-helical peptides: implications for the **viral** fusion mechanism)

L12 ANSWER 25 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:593984 HCAPLUS
DOCUMENT NUMBER: 125:270178
TITLE: HIV-1 membrane fusion mechanism: structural studies of the interactions between biologically-active peptides from gp41
AUTHOR(S): Lawless, Mary K.; Barney, Shawn; Guthrie, Kelly I.; Bucy, Teresa B.; Petteway, Stephen R., Jr.; Merutka, Gene
CORPORATE SOURCE: Trimeris Inc., Research Triangle Park, NC, 27709, USA
SOURCE: Biochemistry (1996), 35(42), 13697-13708

CODEN: BICHAW; ISSN: 0006-2960
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Two synthetic peptides corresponding to sequences in HIV-1LAI gp41, T21 (aa 558-595) and T20 (aa 643-678), are strong inhibitors of HIV-1 viral fusion, having EC50 values of 1 .mu.g/mL and 1 ng/mL, resp. Previous work suggested that T21 forms a coiled-coil structure in PBS soln., while T20 is primarily nonhelical, and that the inhibitory action of these peptides occurs after the interaction between the viral gp120 protein and the cellular CD4 receptor. The current study uses sedimentation equil. (SE), CD, and viral-fusion assays to quant. investigate peptide structure and peptide-peptide interactions. SE analyses of T21 (1-100 .mu.M) indicate that the peptide self-assocs. via a monomer/dimer/tetramer equil.; in addn., T20 is monomeric in the range of 1-10 .mu.M and exhibits a complicated monomer/tetramer equil. between 20 and 100 .mu.M. Singular value decompn. analyses of the CD spectra of T21 and T20 indicate that the helical content of these peptides in PBS soln. is 90% and 20%, resp. A structural interaction between the 2 peptides is detected by CD at several concn. ratios of T20:T21. These expts. emphasize that T20 interacts specifically with the tetrameric form of T21. Truncated forms of T20 also exhibit structural interactions with T21 at varying concn. ratios. The ability of T20 and the truncated peptides to interact structurally with tetrameric T21 correlates with antiviral activity. Implications of these findings are discussed in terms of proposed mechanisms of membrane fusion inhibition and the structural changes which occur in gp41 during membrane fusion.

IT **159519-65-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(**HIV**-1 membrane fusion mechanism: structural studies of the interactions between biol.-active peptides from gp41)

L12 ANSWER 26 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:386031 HCAPLUS
DOCUMENT NUMBER: 125:50774
TITLE: A recombinant protein designated DEV-1, useful in the detection of HIV virus, DNA sequence encoding the protein, and human blood viral infection diagnosis using immunoassay
INVENTOR(S): Devash, Yair
PATENT ASSIGNEE(S): Devaron, Inc., USA
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9612023	A1	19960425	WO 1995-US13335	19951011
W: AL, AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9540024	A1	19960506	AU 1995-40024	19951011

PRIORITY APPLN. INFO.: IL 1994-111311 19941017
WO 1995-US13335 19951011

AB Purified protein DEV-1, and biol. active analogs, fragments and derivs.

thereof are described, which are useful, inter alia as an antigen for the detection of HIV antibodies in human biol. samples.

IT **178038-95-4P**
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(amino acid sequence; recombinant protein designated DEV-1, useful in detection of **HIV virus**, DNA sequence encoding protein, and human blood **viral** infection diagnosis using immunoassay)

L12 ANSWER 27 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:896324 HCAPLUS
DOCUMENT NUMBER: 123:310209
TITLE: Non-pathogenic strains of HIV-1
INVENTOR(S): Deacon, Nicholas John; Learmont, Jennifer Catherine; McPhee, Dale Alan; Crowe, Suzanne; Cooper, David
PATENT ASSIGNEE(S): Macfarlane Burnet centre for Medical Research, Australia; Australian Red Cross Society
SOURCE: PCT Int. Appl., 302 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9521912	A1	19950817	WO 1995-AU63	19950214
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UG				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2183154	AA	19950817	CA 1995-2183154	19950214
AU 9517008	A1	19950829	AU 1995-17008	19950214
AU 699175	B2	19981126		
ZA 9501182	A	19951018	ZA 1995-1182	19950214
EP 754223	A1	19970122	EP 1995-908826	19950214
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 10500281	T2	19980113	JP 1995-520856	19950214

PRIORITY APPLN. INFO.:
AU 1994-3864 A 19940214
AU 1994-4002 A 19940221
AU 1994-284 A 19941223
WO 1995-AU63 W 19950214

AB The present invention relates to non-pathogenic strains of HIV-1 and to components, parts, fragments and derivs. thereof and to genetic sequences derived therefrom and their use in the development of diagnostic and therapeutic compns. for the treatment and prophylaxis of AIDS and AIDS-related disorders. The present invention also relates to a method for attenuating pathogenic strains of HIV-1 by mutagenizing particular regions of the HIV-1 genome.

IT **169874-95-7**
RL: PRP (Properties)
(amino acid sequence; nonpathogenic strains of **HIV**-1)

L12 ANSWER 28 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:882934 HCAPLUS
DOCUMENT NUMBER: 124:46731
TITLE: Recovery of virtually full-length HIV-1 provirus of diverse subtypes from primary virus cultures using the

polymerase chain reaction
AUTHOR(S): Salminen, Mika O.; Koch, Christine; Sanders-Buell, Eric; Ehrenberg, Philip K.; Michael, Nelson L.; Carr, Jean K.; Burke, Donald S.; McCutchan, Francine E.
CORPORATE SOURCE: Henry M. Jackson Foundation for Advancement Military Med., Rockville, MD, 20850, USA
SOURCE: Virology (1995), 213(1), 80-6
CODEN: VIRLAX; ISSN: 0042-6822
PUBLISHER: Academic
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In the course of the global pandemic, the human immunodeficiency virus type-1 (HIV-1) has established .gtoreq.8 distinct genotypes in the main (M), or prevalent, group of isolates, a variety of rare outlier forms, and intergenotypic recombinants of group M viruses. This genotypic diversity has been documented, for the most part, by sequencing of subgenomic segments of the provirus. DNA from virus cultures on peripheral blood mononuclear cells (PBMC) and recent improvements of the PCR technique were used to amplify virtually full-length HIV-1 genomes from genetic subtypes A through G of group M viruses and several of them were molecularly cloned. Resequencing of the complete genome of a prototype strain after long PCR amplification and cloning has established a PCR error rate of 0.14%. The first complete PCR-derived sequence of a U.S. clin. isolate of genotype B expanded only in primary PBMC is also reported; this provirus harbors a uniquely truncated V3 loop.
IT **171886-27-4**
RL: PRP (Properties)
(amino acid sequence; recovery of virtually full-length **HIV**-1 **provirus** of diverse subtypes from primary **virus** cultures using PCR)

L12 ANSWER 29 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:698894 HCAPLUS
DOCUMENT NUMBER: 123:76420
TITLE: A method of encapsidating poliovirus nucleic acids lacking genes essential for encapsidation and uses of the encapsidated nucleic acids
INVENTOR(S): Morrow, Casey D.
PATENT ASSIGNEE(S): UAB Research Foundation, USA
SOURCE: Can. Pat. Appl., 62 pp.
CODEN: CPXXEB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2125344	AA	19950102	CA 1994-2125344	19940607
US 5622705	A	19970422	US 1995-444882	19950519
US 5614413	A	19970325	US 1996-589446	19960122

PRIORITY APPLN. INFO.: US 1993-87009 A 19930701
AB A method of encapsidating a recombinant poliovirus nucleic acid lacking some of the functions necessary for encapsidation is described. The method involves a host cell line that carries an expression vector that complements the defect in the poliovirus. The poliovirus nucleic acid is introduced into the host cells and and is packaged. A foreign nucleotide sequence is generally substituted for the nucleotide sequence of the poliovirus nucleic acid encoding at least a portion of a protein necessary for encapsidation. The encapsidated virus may be used to synthesize a foreign antigen and so act as the immunogenic component of a vaccine. HeLa or BSC40 cells transformed with a vaccinia virus expression vector carrying the poliovirus P1 precursor gene were transformed with the

transcript of a chimeric poliovirus genome with the VP2 or VP3 regions substituted with the HIV-1 gag or pol genes and the virus recovered from cell lysates. Mice inoculated with these constructs developed an immune response to the HIV-1 antigen.

IT **165308-52-1**
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(amino acid sequence; method of encapsidating **poliovirus** nucleic acids lacking genes essential for encapsidation and uses of encapsidated nucleic acids)

L12 ANSWER 30 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:364733 HCAPLUS
DOCUMENT NUMBER: 122:281521
TITLE: Interactions of HIV-1 envelope glycoproteins with derivatized dextrans
AUTHOR(S): Carre, Vincent; Mbemba, Elisabeth; Letourneur, Didier; Jozefonvicz, Jacqueline; Gattegno, Liliane
CORPORATE SOURCE: Laboratoire de Biologie Cellulaire, Faculte de Medecine, Universite Paris-Nord, 74 Rue Marcel Cachin, Bobigny, 93012, Fr.
SOURCE: Biochimica et Biophysica Acta (1995), 1243(2), 175-80
CODEN: BBACAQ; ISSN: 0006-3002
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Derivatized dextrans, such as carboxylmethyl dextran benzylamide and carboxymethyl dextran benzylamide sulfonate, specifically interacted with HIV-1 envelope glycoproteins (rgp160 and rgp41) with significantly higher affinities than those obsd. for dextran sulfate (MW 8 kDa). These results suggest the possible involvement in HIV infectivity of surface membrane mols. which may bind the virus at pre or post-CD4 binding steps. They also suggest the possible use of these compds. in anti-HIV therapy.
IT **162995-83-7 162995-84-8**
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(amino acid sequence; interactions of **HIV**-1 envelope glycoproteins with derivatized dextrans in relation to **antiviral** activity)

L12 ANSWER 31 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1995:122836 HCAPLUS
DOCUMENT NUMBER: 122:2742
TITLE: Peptides corresponding to a predictive .alpha.-helical domain of human immunodeficiency virus type 1 gp41 are potent inhibitors of virus infection
AUTHOR(S): Wild, Carl T.; Shugars, Diane C.; Greenwell, Teresa K.; McDanal, Charleen B.; Matthews, Thomas J.
CORPORATE SOURCE: Dep. Surg., Duke Univ. Med. Cent., Durham, NC, 27710, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1994), 91(21), 9770-4
CODEN: PNASA6; ISSN: 0027-8424
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To define the role of the human immunodeficiency virus type 1 (HIV-1) envelope proteins in virus infection, a series of peptides were synthesized based on various regions of the HIV-1 transmembrane protein gp41. One of these peptides, DP-178, corresponding to a region predictive of .alpha.-helical secondary structure (residues 643-678 of the HIV-1LAI isolate), has been identified as a potent antiviral agent. This peptide consistently blocked 100% of virus-mediated cell-cell fusion at <5 ng/mL (IC90 .apprxeq. 1.5 ng/mL) and gave an .apprxeq. 10 times redn. in

infectious titer of cell-free virus at .apprxeq.80 ng/mL. The inhibitory activity was obsd. at peptide concns. .apprxeq. 104 to 104 times lower than those at which cytotoxicity and cytostasis were detected. Peptide-mediated inhibition is HIV-1 specific in that .apprxeq.102 to 103 times more peptide was required for inhibition of a human immunodeficiency virus type 2 isolate. Further expts. showed that DP-178 exhibited antiviral activity against both prototypic and primary HIV-1 isolates. As shown by PCR anal. of newly synthesized proviral DNA, DP-178 blocks an early step in the virus life cycle prior to reverse transcription. Finally, the authors discuss possible mechanisms by which DP-178 may exert its inhibitory activity.

IT **159519-65-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(corresponding to predictive .alpha.-helical domain of human immunodeficiency **virus** type 1 gp41 are potent inhibitors of **virus** infection)

L12 ANSWER 32 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1994:595914 HCAPLUS
DOCUMENT NUMBER: 121:195914
TITLE: Deletion mutants of the gp41 glycoprotein of human immunodeficiency virus 1 and their use in the treatment of HIV-1 infection
INVENTOR(S): Essex, Myron E.; Yu, Xiaofang; Lee, Tun Hou
PATENT ASSIGNEE(S): Harvard College, USA
SOURCE: PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9412533	A1	19940609	WO 1993-US212	19930112
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2150028	AA	19940609	CA 1993-2150028	19930112
EP 674657	A1	19951004	EP 1993-903064	19930112
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
US 5736391	A	19980407	US 1995-467933	19950606
PRIORITY APPLN. INFO.:			US 1992-979975	19921123
			WO 1993-US212	19930112

AB Deletion mutants of glycoprotein gp41 of HIV-1 are characterized for use in the treatment of HIV-1 infection. Mutants of HIV-1 with deletions in the C-terminal region of gp41 were constructed without interfering with the overlapping rev gene and COS-7 cells were transfected with the DNA to generate the virus. When the viruses were used to infect T-lymphoid cell lines, it was found that replication was dramatically impaired with all but one of the mutants failing to establish productive infection with the infectivity of the most productive strain 2 logs lower than that of the wild type. Immunoblots of viral proteins from virions showed normal levels of gag p24, and p17, pol p66, p51, and p34 but dramatically lower levels of gp120 and gp41.

IT **158130-86-0 158130-87-1 158130-88-2**
158130-89-3 158130-90-6 158130-91-7
RL: PRP (Properties)
(amino acid sequence of, for treatment of **HIV** infection, prepn. of)

IT **158130-85-9D**, C-terminal deletion analogs
RL: PROC (Process)

(for treatment of **HIV** infection, prepn. of)

L12 ANSWER 33 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1993:3468 HCAPLUS
DOCUMENT NUMBER: 118:3468
TITLE: Molecular characterization of biologically diverse envelope variants of human immunodeficiency virus type 1 derived from an individual
AUTHOR(S): Daniels, Rod S.; Smith, Marian H.; Fisher, Amanda G.
CORPORATE SOURCE: Virol. Div., Natl. Inst. Med. Res., London, NW7 1AA, UK
SOURCE: Journal of Virology (1991), 65(10), 5574-8
CODEN: JOVIAM; ISSN: 0022-538X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The envelope genes of 6 viruses derived from a single sampling from an individual chronically infected with human immunodeficiency virus type 1 (RJS-4) were analyzed. The nucleotide and predicted amino acid sequences of these variants are given and a correlation between biol. properties and disturbance of the envelope reading frame.
IT **144903-86-6**, Glycoprotein (human immunodeficiency **provirus** 1 clone pHXB2gpt gene env precursor protein moiety reduced)
RL: PRP (Properties)
(amino acid sequence of)

L12 ANSWER 34 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1990:586059 HCAPLUS
DOCUMENT NUMBER: 113:186059
TITLE: Recombinant manufacture of fusion protein of human T-cell leukemia virus 1 (HTLV-I) and human immunodeficiency virus (HIV) envelope proteins
INVENTOR(S): Longiaru, Mathew; Scherer, Bradley John; Terry, Robert William
PATENT ASSIGNEE(S): Hoffmann-La Roche, F., und Co. A.-G., Switz.
SOURCE: Eur. Pat. Appl., 25 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 345792	A2	19891213	EP 1989-110414	19890608
EP 345792	A3	19910502		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
DK 8902844	A	19891211	DK 1989-2844	19890609
AU 8936255	A1	19891214	AU 1989-36255	19890609
AU 627738	B2	19920903		
JP 02042987	A2	19900213	JP 1989-148228	19890609

PRIORITY APPLN. INFO.: US 1988-205401 19880610
AB The title fusion proteins comprising .gtoreq.1 epitope of HIV-1 envelope protein such as HIV-1 gp41, and .gtoreq.1 epitope of HTLV-I envelope protein are manufd. with recombinant cells. The fusion proteins may be used for the detection of antibodies to HIV and HTLV-I and HTLV-I-assocd. virus such as HTLV-II. Also given is a method for detecting the antibodies to the viruses using the fusion protein. Plasmid HIV-1 pENV(60)-HTLV-I-ENV-I contg. a chimeric gene encoding the N-terminal 60 amino acids of HIV-1 gp41 and 134 amino acids of HTLV-I envelope protein (amino acids 306-440) was constructed by std. procedures and transfected into Escherichia coli. The fusion protein was manufd. with the recombinant E. coli and purified by extn., solubilization, and chromatog. Immunoassay of the antibodies to HIV-1 virus in AIDS and AIDS-related

complex patients who were previously shown to be seropos. and of the antibodies in HTLV-I seropos. samples was given.

IT **130003-41-7**, Glycoprotein gp 160 (human immunodeficiency **provirus** 1 clone pH2Ex gene env protein moiety reduced)
RL: PRP (Properties)
(amino acid sequence of)

L12 ANSWER 35 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1990:135603 HCAPLUS
DOCUMENT NUMBER: 112:135603
TITLE: Solid phase immunoassay for an antibody and recombinant proteins for use therein
INVENTOR(S): Highfield, Peter Edmund; Duncan, Richard Julian Stuart; Parker, David; Spence, Robert Paul
PATENT ASSIGNEE(S): Wellcome Foundation Ltd., UK
SOURCE: Eur. Pat. Appl., 30 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 307149	A2	19890315	EP 1988-308170	19880902
EP 307149	A3	19890503		
EP 307149	B1	19930107		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
DK 8804908	A	19890305	DK 1988-4908	19880902
AU 8821825	A1	19890309	AU 1988-21825	19880902
AU 615670	B2	19911010		
JP 01163665	A2	19890627	JP 1988-220305	19880902
JP 2634203	B2	19970723		
ZA 8806555	A	19900530	ZA 1988-6555	19880902
AT 84370	E	19930115	AT 1988-308170	19880902
ES 2051859	T3	19940701	ES 1988-308170	19880902
AU 9182753	A1	19911121	AU 1991-82753	19910823
PRIORITY APPLN. INFO.:			GB 1987-20800	19870904
			GB 1988-18030	19880728
			EP 1988-308170	19880902

AB An immunoassay for an antibody comprises: (i) contacting a solid phase, on which is immobilized a first recombinant peptide which presents an antigenic sequence to which the antibody is capable of binding, with a test sample; (ii) contacting the solid phase with a second recombinant peptide which presents the antigenic sequence, which is labeled and which was expressed in an organism of a different genus than that in which the first recombinant peptide was expressed; and (iii) detg. whether the test sample contained any antibody. A suitable protein for use in assaying for anti-p24 and anti-gp41 HIV-1 (human immunodeficiency virus 1) antibody is a fusion of a gag sequence comprising amino acids 121-356 and an env sequence comprising amino acids 542-674. The amino acids are numbered according to Meusing, et al. (1985). Plasmid pDM322 (prepn. described) contg. the region encoding amino acids 542-674 of the HIV-1 env gene was digested with EcoRI, filled in with Klenow fragment, digested with BamHI, and the 410-base-pair fragment was ligated to a SmaI/BamHI fragment of plasmid pDM614 (prepn. described) contg. the region of the HIV-1 gag gene encoding for amino acids 121-356. The ligated fragments were transformed into Escherichia coli TG1 and 1 recombinant plasmid, pDM624, was digested with EcoRI and BamHI to produce an 1120-base-pair fragment, which was transferred to plasmid pXY46X (prepn. described) to produce the expression plasmid pDM626. The env/gag fusion protein from pDM626 was purified and coated onto microtiter plate wells. Serum samples (50 .mu.L) were added to the wells, incubated for 30 min, and the wells were washed and treated

with 50 .mu.L peroxidase-conjugated antihuman Ig for 30 min. Upon addn. of enzyme substrate, antibodies to HIV-1 were detected by comparison to a std. All seroneg. samples tested neg., and all seropos. samples tested pos. (55/55 and 25/25, resp.). Construction of plasmids coding for foot-and-mouth disease virus VP1 protein-hepatitis B core antigen fusion products are also described.

IT **125857-53-6**
RL: ANST (Analytical study)
(as env/gag fusion protein of human immunodeficiency **virus** 1, immunoassay for antibody in relation to)

IT **125857-38-7**
RL: ANST (Analytical study)
(cloning and expression of, in Escherichia coli)

L12 ANSWER 36 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1988:623976 HCAPLUS
DOCUMENT NUMBER: 109:223976
TITLE: Production of polypeptides derived from the envelope gene of human immunodeficiency virus in recombinant baculovirus-infected insect cells for use as vaccine
INVENTOR(S): Cochran, Mark A.; Smith, Gale E.; Volvovitz, Franklin
PATENT ASSIGNEE(S): Microgenesys, Inc., USA
SOURCE: Eur. Pat. Appl., 26 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 265785	A2	19880504	EP 1987-115085	19871015
EP 265785	A3	19891108		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
ZA 8707752	A	19890628	ZA 1987-7752	19871015
DK 8705419	A	19880417	DK 1987-5419	19871016
FI 8704564	A	19880417	FI 1987-4564	19871016
AU 8779842	A1	19880421	AU 1987-79842	19871016
BR 8705535	A	19880524	BR 1987-5535	19871016
HU 45095	A2	19880530	HU 1987-4666	19871016
JP 63207397	A2	19880826	JP 1987-262572	19871016
CN 87107837	A	19881221	CN 1987-107837	19871016
DD 269629	A5	19890705	DD 1987-308039	19871016
DD 283935	A5	19901031	DD 1987-329440	19871016
DD 284046	A5	19901031	DD 1987-329441	19871016
PL 161165	B1	19930531	PL 1987-268266	19871016
PL 161448	B1	19930630	PL 1987-293520	19871016
AU 9188324	A1	19920430	AU 1991-88324	19911129
LV 10654	B	19951020	LV 1993-344	19930514
LV 10495	B	19951020	LV 1993-345	19930514
LV 10496	B	19951020	LV 1993-346	19930514

PRIORITY APPLN. INFO.: US 1986-920197 19861016

AB AIDS virus antigenic proteins are produced using a recombinant insect virus. Recombinant plasmids were constructed by inserting into plasmids MGS-3, -4, or -5 the cDNA for the HIV full-length envelope gp160 glycoprotein (or a fragment thereof from plasmid NA-2). In some of the recombinant plasmids, the viral glycoprotein cDNA was fused with the gene for hepatitis B surface antigen or interleukin 2 signal peptide. The recombinant plasmids were calcium phosphate-pptd. with Autographa californica nuclear polyhedrosis virus and added to Spodoptera furgiperda cells. Cells harboring recombinant viruses contg. inserts of HIV env sequences were isolated, which produced the desired viral proteins.

IT **117537-38-9**, 1-757-Glycoprotein gp 160 (human immunodeficiency

provirus clone NA-2 gene env protein moiety reduced)
117537-39-0, 472-757-Glycoprotein gp 160 (human immunodeficiency **provirus** clone NA-2 gene env protein moiety reduced)
117537-39-0D, 472-757-Glycoprotein gp 160 (human immunodeficiency **provirus** clone NA-2 gene env protein moiety reduced), fusion products with interleukin 2 signal peptide **117537-40-3**, 472-861-Glycoprotein gp 160 (human immunodeficiency **provirus** clone NA-2 gene env protein moiety reduced) **117537-41-4D**, 473-861-Glycoprotein gp 160 (human immunodeficiency **provirus** clone NA-2 gene env protein moiety reduced), fusion products with interleukin 2 signal peptide
RL: PRP (Properties)
(amino acid sequence of and expression in insect cells of cDNA for)
IT **117537-33-4**, Glycoprotein gp 160 (human immunodeficiency **provirus** clone NA-2 gene env protein moiety reduced)
RL: PRP (Properties)
(expression in insect cells of cDNA for)

L12 ANSWER 37 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1988:210167 HCAPLUS
DOCUMENT NUMBER: 108:210167
TITLE: Construction of recombinant vaccinia and baculovirus producing antigenic proteins for use as vaccines for AIDS
INVENTOR(S): Hu, Shiu Lok; Purchio, Anthony; Madisen, Linda
PATENT ASSIGNEE(S): Oncogen, USA
SOURCE: Belg., 158 pp.
CODEN: BEXXAL
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 905492	A1	19870325	BE 1986-217210	19860925
ZA 8607281	A	19870527	ZA 1986-7281	19860924
DE 3690508	T	19880623	DE 1986-3690508	19860925
US 5081029	A	19920114	US 1989-304926	19890201

PRIORITY APPLN. INFO.: US 1985-779909 19850925
US 1986-842984 19860327
US 1986-905217 19860909
US 1986-909447 19860919
WO 1986-US2002 19860925

AB Recombinant nonpathogenic viruses (e.g. vaccinia, baculovirus) producing lymphadenopathy assocd. virus/human T-cell leukemia virus type III (LAV/HTLVIII) antigenic proteins are constructed which can be used as vaccines against AIDS. Vectors were constructed contg. the LAV/HTLVIII env or gag gene or gene fragment under the control of the vaccinia 7.5 K promoter or the Autographa californica polyhedrin gene promoter. These vectors were used to produce recombinant vaccinia or Autographa californica viruses by homologous recombination. The resultant recombinant viruses showed immunogenic activity in mice and chimpanzee. Virus v-env5 (producing env protein) stimulated interleukin 2 prodn. by T-cells.
IT **95568-30-2**
RL: BIOL (Biological study)
(cloning of gene for, in recombinant **virus** vaccine construction)

L12 ANSWER 38 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1987:616034 HCAPLUS
DOCUMENT NUMBER: 107:216034

TITLE: Polypeptides mimicking antigenic determinants of human T-cell lymphotropic virus type III (HTLV-III), their production by recombinant DNA techniques and their use in immunoassays and vaccines
INVENTOR(S): Berman, Michael L.; Crush, Sylvia A.; Wong-Staal, Flossie; Gallo, Robert C.
PATENT ASSIGNEE(S): AKZO N. V., Neth.
SOURCE: Eur. Pat. Appl., 33 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 227169	A2	19870701	EP 1986-202213	19861208
EP 227169	A3	19890712		
EP 227169	B1	19930317		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 87103	E	19930415	AT 1986-202213	19861208
ES 2054616	T3	19940816	ES 1986-202213	19861208
AU 8666519	A1	19870702	AU 1986-66519	19861215
AU 612315	B2	19910711		
FI 8605123	A	19870618	FI 1986-5123	19861216
FI 91282	B	19940228		
FI 91282	C	19940610		
NO 8605094	A	19870618	NO 1986-5094	19861216
NO 171477	B	19921207		
NO 171477	C	19930317		
JP 62240863	A2	19871021	JP 1986-299775	19861216
JP 2587414	B2	19970305		
DK 8606107	A	19870618	DK 1986-6107	19861217

PRIORITY APPLN. INFO.: US 1985-809872 19851217
US 1986-861900 19860508
US 1986-887294 19860718
US 1986-927577 19861114
EP 1986-202213 19861208

AB An immunochem. reagent comprising a combination of .gtoreq.2 synthetic polypeptide sequences mimicking .gtoreq.1 antigenic determinant of the gag antigen, glycoprotein gp120, and glycoprotein gp41 of HTLV-III is prepd. by recombinant DNA techniques for use in immunoassays and vaccines. Fragments of a genomic clone (.lambda.HAT-3) of an HTLV-III prophage in bacteriophage were used in construction of cloning vectors derived from pBR322 for cloning and expression of the appropriate immunogenic polypeptide genes in Escherichia coli. The polypeptides were recovered from harvested cells and used for ELISA of test serums for HTLV-III antibody.

IT **111274-36-3P 111274-47-6P**
RL: BMF (Bioindustrial manufacture); BIOL (Biological study); PREP (Preparation)
(manuf. of, with recombinant Escherichia coli for immunoassays and vaccines for human T-cell lymphotropic **virus** type III)

L12 ANSWER 39 OF 39 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1987:493086 HCAPLUS
DOCUMENT NUMBER: 107:93086
TITLE: Recombinant acquired immune deficiency syndrome (AIDS) viral envelope protein and method of testing for AIDS
INVENTOR(S): Crowl, Robert Mitchell; Gallo, Robert Charles; Reddy, Eragam Premkumar; Shaw, George Mead; Wong-Staal, Flossie Yeeching
PATENT ASSIGNEE(S): Hoffmann-La Roche, F., und Co. A.-G., Switz.; United

States Dept. of Health and Human Services
SOURCE: Eur. Pat. Appl., 46 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 199301	A1	19861029	EP 1986-105371	19860418
EP 199301	B1	19931229		
EP 199301	B2	19970709		
R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
US 725021	A0	19880601	US 1985-725021	19850419
DK 8601772	A	19861020	DK 1986-1772	19860417
DK 171119	B1	19960617		
FI 8601626	A	19861020	FI 1986-1626	19860417
NO 8601546	A	19861020	NO 1986-1546	19860418
AU 8656363	A1	19861023	AU 1986-56363	19860418
AU 595511	B2	19900405		
JP 62012799	A2	19870121	JP 1986-89830	19860418
ES 554155	A1	19870601	ES 1986-554155	19860418
AT 99330	E	19940115	AT 1986-105371	19860418
ES 557293	A1	19880301	ES 1987-557293	19870112
ES 557293	A5	19880328		
ES 557294	A1	19880301	ES 1987-557294	19870112
ES 557294	A5	19880328		
ES 557295	A1	19880301	ES 1987-557295	19870112
ES 557295	A5	19880328		
ES 557296	A1	19880301	ES 1987-557296	19870112
ES 557296	A5	19880328		
US 6077935	A	20000620	US 1991-811896	19911220
US 5773210	A	19980630	US 1993-132406	19931006
US 5869233	A	19990209	US 1995-456352	19950601

PRIORITY APPLN. INFO.:
US 1985-725021 A 19850419
EP 1986-105371 A 19860418
US 1988-244590 B1 19880913
US 1991-811896 A3 19911220
US 1993-132406 A3 19931006

AB The AIDS viral envelope protein was prepd. by recombinant DNA techniques for use as an antigen in detection of AIDS virus antibodies in human blood, in prodn. of antibodies for detection of the viral antigen, and as a vaccine in immunization against AIDS virus. Use of this pure antigen overcomes problems of nonspecificity assocd. with the virus-contg. human cell exts. used previously. The envelope protein has a mol. wt. of 97,200 and has 32 potential N-glycosylation sites; its amino acid sequence and corresponding nucleotide sequence are presented. The protein has a hydrophobic region at the middle which includes a processing site for cleavage of the precursor protein into exterior and transmembrane proteins. Another short hydrophobic region near the N-terminus may constitute a signal sequence. Comparison of the amino acid sequences of envelope proteins from lymphadenopathy-assocd. virus, AIDS-assocd. retrovirus 2, and 3 isolates of human T-cell leukemia virus III (HTLV-III) revealed 1-20% divergence among the sequences, suggesting that these are all variants of the same AIDS virus. For example, the cloned proviral genome of HTLV-III was digested with EcoRI and HindIII and a 2400-bp fragment was inserted into a pBR322 deriv. for cloning and expression in Escherichia coli.

IT **98615-73-7**
RL: ANST (Analytical study)
(envelope protein of AIDS **virus** in relation to)

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E1 THROUGH E31 ASSIGNED

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DICTIONARY FILE UPDATES:  19 MAY 2003  HIGHEST RN 518003-32-2

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PROPERTIES for more information.  See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

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L13          31 S E1-E31 AND L6

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L13  ANSWER 1 OF 31  REGISTRY  COPYRIGHT 2003 ACS
RN   308310-41-0  REGISTRY
CN   2: PN: JP2000333678 SEQID: 2 unclaimed sequence (9CI)  (CA INDEX NAME)
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 type            ------ location ------        description
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HITS AT:   620-655

REFERENCE   1:  134:4044

L13  ANSWER 2 OF 31  REGISTRY  COPYRIGHT 2003 ACS
RN   264584-24-9  REGISTRY
CN   Envelope protein, gp41env (human immunodeficiency virus 1 strain LAI
     extracellular domain) (9CI)  (CA INDEX NAME)
SQL  162
RN   264584-24-9  REGISTRY

SEQ    101 ASWSNKSLEQ IWNNMTWMEW DREINNYTSL IHSLIEESQN QQEKNEQELL
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       151 ELDKWASLWN WF
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HITS AT:   127-162

REFERENCE   1:  132:288345

L13  ANSWER 3 OF 31  REGISTRY  COPYRIGHT 2003 ACS
RN   239445-66-0  REGISTRY
CN   Glycoprotein gp160 (human immunodeficiency virus 1 857-amino acid isoform)
     (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   1: PN: BR9710824 SEQID: 1 claimed protein
SQL  857
RN   239445-66-0  REGISTRY

SEQ    601 GKLICTTAVP WNASWSNKSL EQIWNNMTWM EWDREINNYT SLIHSLIEES
                                                  == ==========
       651 QNQQEKNEQE LLELDKWASL WNWFNITNWL WYIKIFIMIV GGLVGLRIVF
           ========== ========== ====
HITS AT:   639-674

REFERENCE   1:  135:191275

REFERENCE   2:  131:180832

L13  ANSWER 4 OF 31  REGISTRY  COPYRIGHT 2003 ACS
RN   235787-61-8  REGISTRY
CN   L-Phenylalanine, L-tyrosyl-L-threonyl-L-seryl-L-leucyl-L-isoleucyl-L-
     histidyl-L-seryl-L-leucyl-L-isoleucyl-L-.alpha.-glutamyl-L-.alpha.-
     glutamyl-L-seryl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-glutaminyl-L-
     .alpha.-glutamyl-L-lysyl-L-asparaginyl-L-.alpha.-glutamyl-L-glutaminyl-L-
     .alpha.-glutamyl-L-leucyl-L-leucyl-L-.alpha.-glutamyl-L-leucyl-L-.alpha.-
     aspartyl-L-lysyl-L-tryptophyl-L-alanyl-L-seryl-L-leucyl-L-tryptophyl-L-
     asparaginyl-L-tryptophyl- (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   118: PN: WO0069900 SEQID: 1419 unclaimed protein
CN   1: PN: US6017536 SEQID: 1 claimed protein
CN   1: PN: WO0143779 SEQID: 1 claimed protein
CN   1: PN: WO0151673 TABLE: 5 unclaimed protein
CN   1: PN: WO0164013 SEQID: 15 claimed protein
CN   1: PN: WO0170262 SEQID: 1 claimed protein
CN   2: PN: WO0159457 SEQID: 5 unclaimed protein
CN   34: PN: WO0066622 SEQID: 34 claimed protein
CN   485: PN: WO0103723 TABLE: 2 unclaimed protein
CN   5: PN: WO0040616 SEQID: 5 claimed protein
CN   9: PN: WO0164710 SEQID: 10 unclaimed protein
SQL  36
RN   235787-61-8  REGISTRY
```

SEQ 1 YTSLIHSLIE ESQNQQEKNE QELLELDKWA SLWNWF
========== ========== ========== ======
HITS AT: 1-36

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 135:317171

REFERENCE 2: 135:287512

REFERENCE 3: 135:236401

REFERENCE 4: 135:236400

REFERENCE 5: 135:190383

REFERENCE 6: 135:136407

REFERENCE 7: 135:60176

REFERENCE 8: 134:125927

REFERENCE 9: 134:21425

REFERENCE 10: 133:349157

L13 ANSWER 5 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **178038-95-4** REGISTRY
CN Antigen (synthetic DEV-1 anti-human antibody) (9CI) (CA INDEX NAME)
NTE

type	------ location ------		description
uncommon	Aaa-47	-	-
uncommon	Aaa-48	-	-
uncommon	Aaa-49	-	-
uncommon	Aaa-50	-	-
uncommon	Aaa-51	-	-
uncommon	Aaa-52	-	-
uncommon	Aaa-53	-	-
uncommon	Aaa-54	-	-
uncommon	Aaa-55	-	-
uncommon	Aaa-56	-	-
uncommon	Aaa-57	-	-
uncommon	Aaa-58	-	-
uncommon	Aaa-59	-	-
uncommon	Aaa-60	-	-
uncommon	Aaa-61	-	-
uncommon	Aaa-62	-	-
uncommon	Aaa-63	-	-
uncommon	Aaa-64	-	-
uncommon	Aaa-65	-	-
uncommon	Aaa-66	-	-
uncommon	Aaa-67	-	-
uncommon	Aaa-68	-	-
uncommon	Aaa-69	-	-
uncommon	Aaa-70	-	-
uncommon	Aaa-210	-	-
uncommon	Aaa-211	-	-
uncommon	Aaa-212	-	-
uncommon	Aaa-213	-	-
uncommon	Aaa-214	-	-
uncommon	Aaa-215	-	-

uncommon Aaa-216 - -
uncommon Aaa-217 - -
uncommon Aaa-218 - -
uncommon Aaa-219 - -
uncommon Aaa-220 - -
uncommon Aaa-221 - -
uncommon Aaa-222 - -
uncommon Aaa-223 - -
uncommon Aaa-224 - -
uncommon Aaa-225 - -
uncommon Aaa-226 - -
uncommon Aaa-227 - -
uncommon Aaa-228 - -
uncommon Aaa-229 - -
uncommon Aaa-230 - -
uncommon Aaa-231 - -
uncommon Aaa-232 - -
uncommon Aaa-233 - -
uncommon Aaa-234 - -

SQL 282
RN **178038-95-4** REGISTRY

SEQ 151 QIWNNMTWME WDREINNYTS LIHSLIEESQ NQQEKNEQEL LELDKWASLW
=== ========== ========== ==========
201 NWFNITNWLX XXXXXXXXXX XXXXXXXXXX XXXXVNRVRQ GYSPLSFQTH
===
HITS AT: 168-203

REFERENCE 1: 125:50774

L13 ANSWER 6 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **171886-27-4** REGISTRY
CN Glycoprotein (human immunodeficiency virus 1 strain NL4-3 clone pNOTA/NL4-3/4.20 gene env) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Glycoprotein (human immunodeficiency provirus 1 strain NL4-3 clone pNOTA/NL4-3/4.20 gene env)
OTHER NAMES:
CN GenBank U26942-derived protein
SQL 854
RN **171886-27-4** REGISTRY

SEQ 601 ICTTAVPWNA SWSNKSLEQI WNNMTWMEWD REINNYTSLI HSLIEESQNQ
===== ==========
651 QEKNEQELLE LDKWASLWNW FNITNWLWYI KLFIMIVGGL VGLRIVFAVL
========== ========== =
HITS AT: 636-671

REFERENCE 1: 124:46731

L13 ANSWER 7 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **169874-95-7** REGISTRY
CN Glycoprotein gp 41 (human immunodeficiency virus 1 strain NL4-3 C-terminal fragment) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Glycoprotein gp 41 (human immunodeficiency provirus 1 strain NL4-3 C-terminal fragment)
OTHER NAMES:
CN 17: PN: US6015661 SEQID: 641 claimed protein
CN 640: PN: US6010895 SEQID: 641 unclaimed protein
SQL 237
RN **169874-95-7** REGISTRY

```
SEQ      1 EQIWNNMTWM EWDREINNYT SLIHSLIEES QNQQEKNEQE LLELDKWASL
                          == ========== ========== ==========
        51 WNWFNITNWL WYIKLFIMIV GGLVGLRIVF AVLSIVNRVR QGYSPLSFQT
           ====
HITS AT:   19-54

REFERENCE   1:  132:118353

REFERENCE   2:  132:74538

REFERENCE   3:  123:310209

L13  ANSWER 8 OF 31  REGISTRY  COPYRIGHT 2003 ACS
RN   165308-52-1  REGISTRY
CN   Protein (human immunodeficiency virus 1 gene env) (9CI)  (CA INDEX NAME)
SQL  519
RN   165308-52-1  REGISTRY

SEQ    401 TTAVPWNASW SNKSLEQIWN HTTWMEWDRE INNYTSLIHS LIEESQNQQE
                                              ======= ==========
       451 KNEQELLELD KWASLWNWFN ITNWLWYIKL FIMIVGGLVG LRIVFAVLSI
           ========== =========
HITS AT:   434-469

REFERENCE   1:  123:76420

L13  ANSWER 9 OF 31  REGISTRY  COPYRIGHT 2003 ACS
RN   162995-84-8  REGISTRY
CN   517-750-Glycoprotein gp 41env (human immunodeficiency virus 1 gene env)
     (9CI)  (CA INDEX NAME)
SQL  235
RN   162995-84-8  REGISTRY

SEQ    101 ASWSNKSLEQ IWNNMTWMEW DREINNYTSL IHSLIEESQN QQEKNEQELL
                                     ==== ========== ==========
       151 ELDKWASLWN WFNITNWLWY IKIFIMIVGG LVGLRIVFAV LSIVNRVRQG
           ========== ==
HITS AT:   127-162

REFERENCE   1:  122:281521

L13  ANSWER 10 OF 31  REGISTRY  COPYRIGHT 2003 ACS
RN   162995-83-7  REGISTRY
CN   (478-522)-(548-679)-(705-757)-Glycoprotein gp 41env (human
     immunodeficiency virus 1 gene env) (9CI)  (CA INDEX NAME)
SQL  222
RN   162995-83-7  REGISTRY

SEQ    101 SGKLICTTAW PWNASWSNKS LEQIWNNNMT WMEWDREINN YTSLIHSLIE
                                                    ==========
       151 ESQNQQEKNE QELLELDKWA SLWNWFAVLS IVNRVRQGYS PLSFQTHLPT
           ========== ========== ======
HITS AT:   141-176

REFERENCE   1:  122:281521

L13  ANSWER 11 OF 31  REGISTRY  COPYRIGHT 2003 ACS
RN   159519-65-0  REGISTRY
CN   L-Phenylalaninamide, N-acetyl-L-tyrosyl-L-threonyl-L-seryl-L-leucyl-L-
     isoleucyl-L-histidyl-L-seryl-L-leucyl-L-isoleucyl-L-.alpha.-glutamyl-L-
     .alpha.-glutamyl-L-seryl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-
     glutaminyl-L-.alpha.-glutamyl-L-lysyl-L-asparaginyl-L-.alpha.-glutamyl-L-
```

glutaminyl-L-.alpha.-glutamyl-L-leucyl-L-leucyl-L-.alpha.-glutamyl-L-leucyl-L-.alpha.-aspartyl-L-lysyl-L-tryptophyl-L-alanyl-L-seryl-L-leucyl-L-tryptophyl-L-asparaginyl-L-tryptophyl- (9CI) (CA INDEX NAME)

OTHER NAMES:
CN 1: PN: US20020146415 PAGE: 10 claimed protein
CN 1: PN: US20030044411 PAGE: 10 claimed protein
CN 1: PN: WO0155439 SEQID: 1 claimed protein
CN 1: PN: WO0224149 PAGE: 24 claimed protein
CN 414: PN: WO0164013 FIGURE: 24 claimed protein
CN 636: PN: WO0151673 FIG: 54 claimed protein
CN DP 178
CN Enfuvirtide
CN Pentafuside
CN T 20
CN T 20 (peptide)
NTE modified

type	location		description
terminal mod.	Tyr-1	-	N-acetyl
terminal mod.	Phe-36	-	C-terminal amide

SQL 36
RN **159519-65-0** REGISTRY

SEQ 1 YTSLIHSLIE ESQNQQEKNE QELLELDKWA SLWNWF
========== ========== ========== ======
HITS AT: 1-36

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 138:297119

REFERENCE 2: 138:247786

REFERENCE 3: 138:238191

REFERENCE 4: 138:218034

REFERENCE 5: 138:215262

REFERENCE 6: 138:180054

REFERENCE 7: 138:131079

REFERENCE 8: 138:130638

REFERENCE 9: 138:121507

REFERENCE 10: 138:19459

L13 ANSWER 12 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **158130-91-7** REGISTRY
CN 1-198-Glycoprotein gp 41 (human immunodeficiency virus 1 clone HXB2R3 gene env) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1-198-Glycoprotein gp 41 (human immunodeficiency provirus 1 clone HXB2R3 gene env)
SQL 198
RN **158130-91-7** REGISTRY

SEQ 101 ASWSNKSLEQ IWNHTTWMEW DREINNYTSL IHSLIEESQN QQEKNEQELL
==== ========== ==========

151 ELDKWASLWN WFNITNWLWY IKLFIMIVGG LVGLRIVFAV LSIVNRVR
========== ==
HITS AT: 127-162

REFERENCE 1: 121:195914

L13 ANSWER 13 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **158130-90-6** REGISTRY
CN 1-252-Glycoprotein gp 41 (human immunodeficiency virus 1 clone HXB2R3 gene env) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1-252-Glycoprotein gp 41 (human immunodeficiency provirus 1 clone HXB2R3 gene env)
SQL 241
RN **158130-90-6** REGISTRY

SEQ 101 ASWSNKSLEQ IWNHTTWMEW DREINNYTSL IHSLIEESQN QQEKNEQELL
==== ========== ==========
151 ELDKWASLWN WFNITNWLWY IKLFIMIVGG LVGLRIVFAV LSIVNRVRQG
========== ==
HITS AT: 127-162

REFERENCE 1: 121:195914

L13 ANSWER 14 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **158130-89-3** REGISTRY
CN 1-264-Glycoprotein gp 41 (human immunodeficiency virus 1 clone HXB2R3 gene env) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1-264-Glycoprotein gp 41 (human immunodeficiency provirus 1 clone HXB2R3 gene env)
SQL 264
RN **158130-89-3** REGISTRY

SEQ 101 ASWSNKSLEQ IWNHTTWMEW DREINNYTSL IHSLIEESQN QQEKNEQELL
==== ========== ==========
151 ELDKWASLWN WFNITNWLWY IKLFIMIVGG LVGLRIVFAV LSIVNRVRQG
========== ==
HITS AT: 127-162

REFERENCE 1: 121:195914

L13 ANSWER 15 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **158130-88-2** REGISTRY
CN 1-284-Glycoprotein gp 41 (human immunodeficiency virus 1 clone HXB2R3 gene env) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1-284-Glycoprotein gp 41 (human immunodeficiency provirus 1 clone HXB2R3 gene env)
SQL 284
RN **158130-88-2** REGISTRY

SEQ 101 ASWSNKSLEQ IWNHTTWMEW DREINNYTSL IHSLIEESQN QQEKNEQELL
==== ========== ==========
151 ELDKWASLWN WFNITNWLWY IKLFIMIVGG LVGLRIVFAV LSIVNRVRQG
========== ==
HITS AT: 127-162

REFERENCE 1: 121:195914

L13 ANSWER 16 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **158130-87-1** REGISTRY
CN 1-302-Glycoprotein gp 41 (human immunodeficiency virus 1 clone HXB2R3 gene

env) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1-302-Glycoprotein gp 41 (human immunodeficiency provirus 1 clone HXB2R3 gene env)
SQL 302
RN **158130-87-1** REGISTRY

SEQ 101 ASWSNKSLEQ IWNHTTWMEW DREINNYTSL IHSLIEESQN QQEKNEQELL
==== ========== ==========
151 ELDKWASLWN WFNITNWLWY IKLFIMIVGG LVGLRIVFAV LSIVNRVRQG
========== ==
HITS AT: 127-162

REFERENCE 1: 121:195914

L13 ANSWER 17 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **158130-86-0** REGISTRY
CN 1-332-Glycoprotein gp 41 (human immunodeficiency virus 1 clone HXB2R3 gene env) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1-332-Glycoprotein gp 41 (human immunodeficiency provirus 1 clone HXB2R3 gene env)
SQL 332
RN **158130-86-0** REGISTRY

SEQ 101 ASWSNKSLEQ IWNHTTWMEW DREINNYTSL IHSLIEESQN QQEKNEQELL
==== ========== ==========
151 ELDKWASLWN WFNITNWLWY IKLFIMIVGG LVGLRIVFAV LSIVNRVRQG
========== ==
HITS AT: 127-162

REFERENCE 1: 121:195914

L13 ANSWER 18 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **158130-85-9** REGISTRY
CN Glycoprotein gp 41 (human immunodeficiency virus 1 clone HXB2R3 gene env) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Glycoprotein gp 41 (human immunodeficiency provirus 1 clone HXB2R3 gene env)
OTHER NAMES:
CN 5: PN: US6294341 SEQID: 7 unclaimed protein
SQL 345
RN **158130-85-9** REGISTRY

SEQ 101 ASWSNKSLEQ IWNHTTWMEW DREINNYTSL IHSLIEESQN QQEKNEQELL
==== ========== ==========
151 ELDKWASLWN WFNITNWLWY IKLFIMIVGG LVGLRIVFAV LSIVNRVRQG
========== ==
HITS AT: 127-162

REFERENCE 1: 135:267203

REFERENCE 2: 121:195914

L13 ANSWER 19 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **144903-86-6** REGISTRY
CN Glycoprotein (human immunodeficiency virus 1 clone pHXB2gpt gene env precursor protein moiety reduced) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Glycoprotein (human immunodeficiency provirus 1 clone pHXB2gpt gene env precursor protein moiety reduced)
SQL 856

RN **144903-86-6** REGISTRY

SEQ 601 GKLICTTAVP WNASWSNKSL EQIWNHTTWM EWDREINNYT SLIHSLIEES
== ==========
651 QNQQEKNEQE LLELDKWASL WNWFNITNWL WYIKLFIMIV GGLVGLRIVF
========== ========== ====
HITS AT: 639-674

REFERENCE 1: 118:3468

L13 ANSWER 20 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **130003-41-7** REGISTRY
CN Glycoprotein gp 160 (human immunodeficiency virus 1 clone pH2Ex gene env protein moiety reduced) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Glycoprotein gp 160 (human immunodeficiency provirus 1 clone pH2Ex gene env protein moiety reduced)
SQL 856
RN **130003-41-7** REGISTRY

SEQ 601 KLICTTAVPW NASWSNKLGS QIWNHTTWME WDREINNYTS LIHSLIEESQ
=== ==========
651 NQQEKNEQEL LELDKWASLW NWFNITNWLW YIKLFIMIVG GLVGLRIVFA
========== ========== ===
HITS AT: 638-673

REFERENCE 1: 113:186059

L13 ANSWER 21 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **125857-53-6** REGISTRY
CN Protein p 24 (human immunodeficiency virus 1 clone .lambda.HXB-3 reduced), N-(L-methionyl-L-seryl-L-prolyl-L-.alpha.-aspartyl-L-threonylglycyl-L-histidyl-L-seryl-L-seryl-L-glutaminyl-L-valyl-L-seryl-L-glutaminyl-L-asparaginyl-L-tyrosyl)-225-L-asparagine-226-L-serine-227-L-proline-, (227.fwdarw.41')-protein with 44-L-leucine-106-L-alanine-111-L-serine-116-L-lysine-119-L-glutamic acid-120-L-glutamine-123-L-glutamine-131-L-aspartic acid-135-L-asparagine-139-L-serine-142-L-histidine-143-L-serine-150-L-asparagine-174-glycine-175-L-aspartic acid-176-L-proline-41-176-glycoprotein gp 41 (human immunodeficiency virus 1 clone HIV-Zr6 gene env protein moiety reduced) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Protein p 24 (human immunodeficiency provirus 1 clone .lambda.HXB-3 reduced), N-(L-methionyl-L-seryl-L-prolyl-L-.alpha.-aspartyl-L-threonylglycyl-L-histidyl-L-seryl-L-seryl-L-glutaminyl-L-valyl-L-seryl-L-glutaminyl-L-asparaginyl-L-tyrosyl)-225-L-asparagine-226-L-serine-227-L-proline-, (227.fwdarw.41')-protein with 44-L-leucine-106-L-alanine-111-L-serine-116-L-lysine-119-L-glutamic acid-120-L-glutamine-123-L-glutamine-131-L-aspartic acid-135-L-asparagine-139-L-serine-142-L-histidine-143-L-serine-150-L-asparagine-174-glycine-175-L-aspartic acid-176-L-proline-41-176-glycoprotein gp 41 (human immunodeficiency provirus 1 clone HIV-Zr6 gene env protein moiety reduced)
SQL 379
RN **125857-53-6** REGISTRY

SEQ 301 SGKLICTTAV PWNASWSNKS LEQIWNNMTW MEWDREINNY TSLIHSLIEE
= ==========
351 SQNQQEKNEQ ELLELDKWAS LWNWFNGDP
========== ========== =====
HITS AT: 340-375

REFERENCE 1: 112:135603

L13 ANSWER 22 OF 31 REGISTRY COPYRIGHT 2003 ACS

RN **125857-38-7** REGISTRY
CN 37-176-Glycoprotein gp 41 (human immunodeficiency virus 1 clone HIV-Zr6 gene env protein moiety reduced), 37-L-methionine-38-L-asparagine-39-L-serine-40-L-proline-44-L-leucine-106-L-alanine-111-L-serine-116-L-lysine-119-L-glutamic acid-120-L-glutamine-123-L-glutamine-131-L-aspartic acid-135-L-asparagine-139-L-serine-142-L-histidine-143-L-serine-150-L-asparagine-174-glycine-175-L-aspartic acid-176-L-proline- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 37-176-Glycoprotein gp 41 (human immunodeficiency provirus 1 clone HIV-Zr6 gene env protein moiety reduced), 37-L-methionine-38-L-asparagine-39-L-serine-40-L-proline-44-L-leucine-106-L-alanine-111-L-serine-116-L-lysine-119-L-glutamic acid-120-L-glutamine-123-L-glutamine-131-L-aspartic acid-135-L-asparagine-139-L-serine-142-L-histidine-143-L-serine-150-L-asparagine-174-glycine-175-L-aspartic acid-176-L-proline-
SQL 140
RN **125857-38-7** REGISTRY

SEQ 101 YTSLIHSLIE ESQNQQEKNE QELLELDKWA SLWNWFNGDP
==========
HITS AT: 101-136

REFERENCE 1: 112:135603

L13 ANSWER 23 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **117537-41-4** REGISTRY
CN 473-861-Glycoprotein gp 160 (human immunodeficiency virus clone NA-2 gene env protein moiety reduced) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 473-861-Glycoprotein gp 160 (human immunodeficiency provirus clone NA-2 gene env protein moiety reduced)
SQL 389
RN **117537-41-4** REGISTRY

SEQ 151 SLEQIWNNMT WMEWDREINN YTSLIHSLIE ESQNQQEKNE QELLELDKWA
==========
201 SLWNWFNITN WLWYIKIFIM IVGGLVGLRI VFAVLSIVNR VRQGYSPLSF
==========
HITS AT: 171-206

REFERENCE 1: 109:223976

L13 ANSWER 24 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **117537-40-3** REGISTRY
CN 472-861-Glycoprotein gp 160 (human immunodeficiency virus clone NA-2 gene env protein moiety reduced) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 472-861-Glycoprotein gp 160 (human immunodeficiency provirus clone NA-2 gene env protein moiety reduced)
SQL 390
RN **117537-40-3** REGISTRY

SEQ 151 KSLEQIWNNM TWMEWDREIN NYTSLIHSLI EESQNQQEKN EQELLELDKW
==========
201 ASLWNWFNIT NWLWYIKIFI MIVGGLVGLR IVFAVLSIVN RVRQGYSPLS
==========
HITS AT: 172-207

REFERENCE 1: 109:223976

L13 ANSWER 25 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **117537-39-0** REGISTRY
CN 472-757-Glycoprotein gp 160 (human immunodeficiency virus clone NA-2 gene

env protein moiety reduced) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 472-757-Glycoprotein gp 160 (human immunodeficiency provirus clone NA-2 gene env protein moiety reduced)
SQL 286
RN **117537-39-0** REGISTRY

SEQ 151 KSLEQIWNNM TWMEWDREIN NYTSLIHSLI EESQNQQEKN EQELLELDKW
========= ========== ==========
201 ASLWNWFNIT NWLWYIKIFI MIVGGLVGLR IVFAVLSIVN RVRQGYSPLS
=======
HITS AT: 172-207

REFERENCE 1: 109:223976

L13 ANSWER 26 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **117537-38-9** REGISTRY
CN 1-757-Glycoprotein gp 160 (human immunodeficiency virus clone NA-2 gene env protein moiety reduced) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1-757-Glycoprotein gp 160 (human immunodeficiency provirus clone NA-2 gene env protein moiety reduced)
SQL 757
RN **117537-38-9** REGISTRY

SEQ 601 WGCSGKLICT TAVPWNASWS NKSLEQIWNN MTWMEWDREI NNYTSLIHSL
========
651 IEESQNQQEK NEQELLELDK WASLWNWFNI TNWLWYIKIF IMIVGGLVGL
========== ========== ========
HITS AT: 643-678

REFERENCE 1: 109:223976

L13 ANSWER 27 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **117537-33-4** REGISTRY
CN Glycoprotein gp 160 (human immunodeficiency virus clone NA-2 gene env protein moiety reduced) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Glycoprotein gp 160 (human immunodeficiency provirus clone NA-2 gene env protein moiety reduced)
SQL 850
RN **117537-33-4** REGISTRY

SEQ 601 AVPWNASWSN KSLEQIWNNM TWMEWDREIN NYTSLIHSLI EESQNQQEKN
========= ==========
651 EQELLELDKW ASLWNWFNIT NWLWYIKIFI MIVGGLVGLR IVFAVLSIVN
========== =======
HITS AT: 632-667

REFERENCE 1: 109:223976

L13 ANSWER 28 OF 31 REGISTRY COPYRIGHT 2003 ACS
RN **111274-47-6** REGISTRY
CN L-Lysine, L-.alpha.-glutamyl-L-isoleucyl-L-asparaginyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-seryl-L-leucyl-L-isoleucyl-L-histidyl-L-seryl-L-leucyl-L-isoleucyl-L-.alpha.-glutamyl-L-.alpha.-glutamyl-L-seryl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-glutaminyl-L-.alpha.-glutamyl-L-lysyl-L-asparaginyl-L-.alpha.-glutamyl-L-glutaminyl-L-.alpha.-glutamyl-L-leucyl-L-leucyl-L-.alpha.-glutamyl-L-leucyl-L-.alpha.-aspartyl-L-lysyl-L-tryptophyl-L-alanyl-L-seryl-L-leucyl-L-tryptophyl-L-asparaginyl-L-tryptophyl-L-phenylalanyl-L-asparaginyl-L-isoleucyl-L-threonyl-L-asparaginyl-L-tryptophyl-L-leucyl-L-tryptophyl-L-tyrosyl-L-isoleucyl- (9CI) (CA INDEX NAME)

SQL 50
RN **111274-47-6** REGISTRY

SEQ 1 EINNYTSLIH SLIEESQNQQ EKNEQELLEL DKWASLWNWF NITNWLWYIK
====== ========== ========== ==========
HITS AT: 5-40

REFERENCE 1: 107:216034

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RN **111274-36-3** REGISTRY
CN L-Asparagine, L-.alpha.-glutamyl-L-isoleucyl-L-asparaginyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-seryl-L-leucyl-L-isoleucyl-L-histidyl-L-seryl-L-leucyl-L-isoleucyl-L-.alpha.-glutamyl-L-.alpha.-glutamyl-L-seryl-L-glutaminyl-L-asparaginyl-L-glutaminyl-L-glutaminyl-L-.alpha.-glutamyl-L-lysyl-L-asparaginyl-L-.alpha.-glutamyl-L-glutaminyl-L-.alpha.-glutamyl-L-leucyl-L-leucyl-L-.alpha.-glutamyl-L-leucyl-L-.alpha.-aspartyl-L-lysyl-L-tryptophyl-L-alanyl-L-seryl-L-leucyl-L-tryptophyl-L-asparaginyl-L-tryptophyl-L-phenylalanyl- (9CI) (CA INDEX NAME)
SQL 41
RN **111274-36-3** REGISTRY

SEQ 1 EINNYTSLIH SLIEESQNQQ EKNEQELLEL DKWASLWNWF N
====== ========== ========== ==========
HITS AT: 5-40

REFERENCE 1: 107:216034

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RN **98615-73-7** REGISTRY
CN Glycoprotein (human immunodeficiency virus clone HXB-3 gene env protein moiety reduced) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Glycoprotein (human immunodeficiency provirus clone HXB-3 gene env protein moiety reduced)
OTHER NAMES:
CN Glycoprotein (human T-cell leukemia provirus type III clone HXB-3 gene env protein moiety reduced)
SQL 856
RN **98615-73-7** REGISTRY

SEQ 601 KLICTTAVPW NASWSNKSLE QIWNHTTWME WDREINNYTS LIHSLIEESQ
=== ==========
651 NQQEKNEQEL LELDKWASLW NWFNITNWLW YIKLFIMIVG GLVGLRIVFA
========== ========== ===
HITS AT: 638-673

REFERENCE 1: 107:93086

REFERENCE 2: 103:154983

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RN **95568-30-2** REGISTRY
CN Glycoprotein (human immunodeficiency virus clone .lambda.J19 gene env protein moiety reduced) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Glycoprotein (human immunodeficiency provirus clone .lambda.J19 gene env protein moiety reduced)
OTHER NAMES:
CN Glycoprotein (lymphadenopathy-associated provirus clone .lambda.J19 gene env protein moiety reduced)
SQL 861
RN **95568-30-2** REGISTRY

SEQ 601 WGCSGKLICT TAVPWNASWS NKSLEQIWNN MTWMEWDREI NNYTSLIHSL
========
651 IEESQNQQEK NEQELLELDK WASLWNWFNI TNWLWYIKIF IMIVGGLVGL
========== ========== ========

HITS AT: 643-678

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 118:143346

REFERENCE 2: 108:210167

REFERENCE 3: 102:126416